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AND

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DEVOTED TO

HORTICULTURE, LANDSCAPE GARDENING, RURAL ARCHITECTURE, BOTANY, POMOLOGY, ENTOMOLOGY, RURAL ECONOMY, ETC.

EDITED BY P. BARRY,
AUTHOR OF THE "FRUIT GARDEN."

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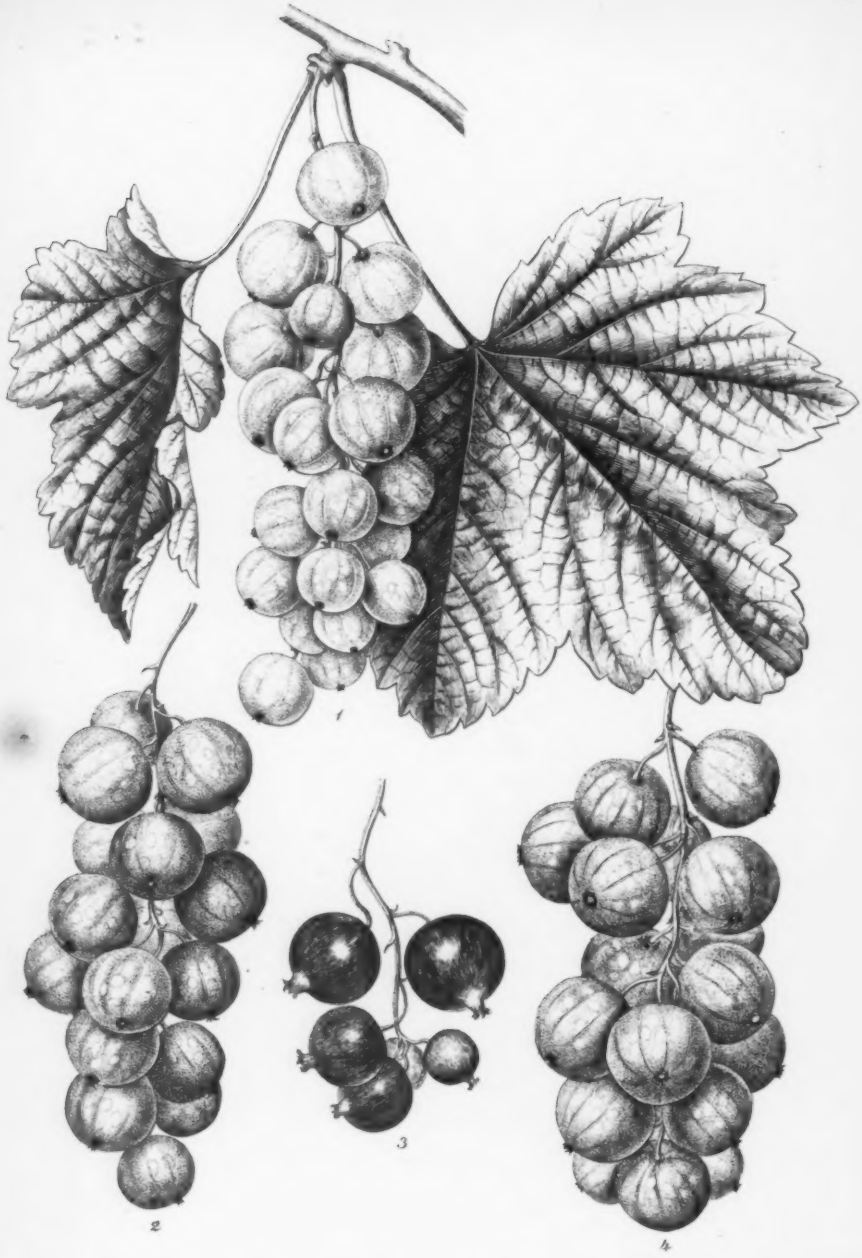
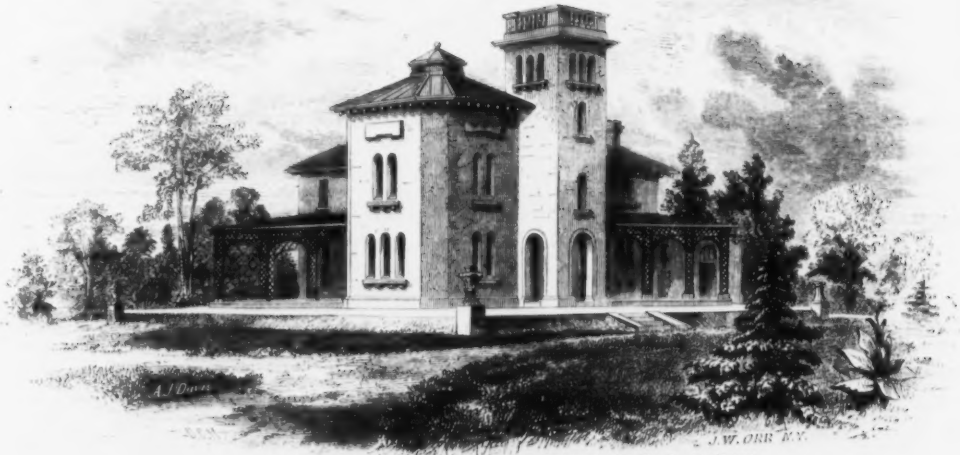


1 White Grape. 2 Prince Albert. 3 Black Naples.
4 Cherry Currant.



Engraved on Wood, by J. W. Orr, of New-York, Expressly for the Horticulturist

WINYAH.

THE RESIDENCE OF COL. RICHARD LATHERS, NEW ROCHELLE, N. Y.

The Currant.

WHEN we consider how largely the Currant contributes to good living, in the way of tarts, jams, jellies, wines, &c.; and how easily it is cultivated, how little space it requires, how patient it is under all sorts of maltreatment; we surely must confess that it is a most valuable fruit — an indispensable fruit, — not for the rich man or the poor man, but for every man who has a square yard of ground to till. Valuable as it is, however, it has received comparatively little attention at the hands either of experimental pomologists or practical fruit-growers. While we have had new varieties of other fruits in abundance and to spare, our list of Currants has remained pretty much the same for a great length of time. In cultivation, too, it has been neglected — thrust into some out-of-the-way corner, where other fruits would utterly refuse to thrive, and left to struggle with its fate — it receives no pruning, or pinching, or training, or mulching, such as are lavished on its more favored neighbors.

With all this neglect, it produces crops of fruit, and large crops too; but of what quality? — about as nearly equal to fine, well-grown Currants, as an austere *Crab* is to a delicious *Fall Pippin*, or a common *Damson* Plum to a *Green Gage*. We are quite certain that no other fruit is more susceptible of improvement, by good treatment, than the Currant. Just try the experiment on a neglected bush that has been left to itself for the last three or four years; — apply the pruning knife judiciously, remove all the suckers from about the roots, prune it up to a single stem six or twelve inches from the ground, thin out the top branches, and then give it a liberal dressing of well-decomposed manure, or good compost; and you will be surprised at the size, and beauty, and richness of your Currants. Follow up this mode of treatment for a few years, and you may by that time know what fine Currants are.

Currant bushes, as we too often find them, are complete nuisances — mere thickets of weak branches. An annual pruning is necessary; suckers must by no means be tolerated, and the main branches should be kept at sufficient distance from each other to admit the sun and air freely. The annual shoots should be shortened, in order to keep up a good supply of lateral fruit-spurs. This applies only to the *Red* and *White* varieties; the *Black* bears its best fruit on the previous year's wood. Then it is a great feeder, and must be annually treated to a light dressing of compost. The roots are small and fibrous, and can not travel far in search of food.

By proper management, the season of Currants may be greatly prolonged. For instance; for early ripening, a few plants may be trained against the south side of a garden fence. In this way they will ripen full two weeks sooner than in the open quarter. For late ripening, train on the north side of a fence such late sorts as the *Victoria* and *Prince Albert*. A new French variety, called *La Hative*, is said to be very early, and may on this account prove valuable.

Training the Currant against a wall or fence is a very simple matter. It may be done in this way: Take a young plant — say a year-old cutting — set it in its place,

Fig. 1.

and when it begins to grow, rub off all shoots on the lower part of the stem, and allow only two strong shoots to remain at the top. At the end of the season the plant will be something like fig. 1. The spring following, these two shoots are shortened one-half or one-third, according to vigor, and brought down to a horizontal position, as in fig. 2. From each of these we have a certain number of young shoots, from which we select one or two to train up in a vertical direction, and one to continue the main horizontal branches, as in fig. 3; all others should be rubbed off. The upright shoots should be full six inches apart. At the next pruning, these upright shoots must be shortened one-third or one-fourth, according to the vigor, to insure the production of lateral fruit-spurs; and from year to year this is repeated. It is an exceedingly simple matter, if started on the right principle.

Fig. 2.

Fig. 3.

Some people may think that such regularity and precision is altogether unnecessary, and that it will answer every purpose if the branches are allowed their natural growth, and spread out against the fence or wall. The same thing is urged in regard to Grape vines. We must insist upon it, however, that system and regularity are necessary in the training of all trees. Without these we can never secure that nice uniformity of growth and vigor that is absolutely essential to the well-being of all trees placed in artificial conditions.

We are glad to observe increased attention given this useful fruit; in a few years it will no doubt occupy a position in the fruit garden to which it is justly entitled. The production of new varieties should engage the attention of experimental cultivators. We want to increase its size; for this, in small fruits, is an important point. See what the English have done for the Gooseberry; the prize varieties for 1853 are actually as large as pullets' eggs. See what has been done for the Strawberry; RIVERS, in his latest catalogue, says that *Myatt's Eleanor* has been grown, in 1853, eight inches in circumference! This shows what may be done. Among Currants we have received, within a few years, some three or four varieties that show a little advance upon the old popular *Red* and *White Dutch* sorts, so generally grown. The frontispiece of this number exhibits some of these.

The *Cherry* is decidedly the largest red Currant known — at least as far as we are informed. The bunches are shorter than those of the *Red Dutch*, but the berries are at least one-third larger under equal circumstances. The plant is a vigorous grower, having strong, short-jointed shoots, and dark green, heavy foliage, that distinguish it at once from the others.

The *Prince Albert* is a new variety sent us a few years ago from France. The bunches are very long; berries nearly as large as the *Cherry*, of a light pinkish-red color, and ripen quite late. Plant vigorous, with distinct, folded, and sharply serrated foliage. Bears profusely. RIVERS says, in his latest catalogue, that *Prince Albert* is the same as the *Transparent White*. The probability is, that he received his plant

from the same source that we did, but got it wrong. It is yet very scarce. It is so remarkable that it can not be confounded with any other sort.

The *White Grape* is the largest and finest of all white Currants. Bunches long, and berries very large and pale. Plant a slow grower, with stout, irregular shoots, and dark green, reflexed leaves. It is called in France *Chasselas*, and in this country has been confounded, to some extent, with the *White Dutch*.

The *Attractor* is a large, white Currant — nearly or quite as large as the *White Grape*. The plant is moderately vigorous, with remarkably deeply lobed, and sharply and deeply serrated foliage.

The *Victoria*, or *Houghton Castle*, is a pale red variety, with bunches of enormous length. Valuable for its lateness.

The *Red Grape*, *Long-bunched Red Dutch*, *Magnum Bonum*, and *Knight's Sweet Red*, are all fine red varieties, superior to the *Red Dutch;* but none of them strikingly distinct.

The *Silver-striped Red* is a variety of the *Red Dutch*, with variegated or blotched foliage, like that of the *Silver-edged* Geranium.

Black Currants, which are largely consumed by the English people for jams and jellies, are not much cultivated in this country. The common *Black English* is well known. The *Black Naples* is larger and finer, and is generally considered the best of this class. We cultivate a curious copper-colored variety of the black Currant. The Missouri Currants are sweet, and have something of the flavor of Whortleberries. The *Large-fruited* has fruit nearly as large as Morrello Cherries, of a shining violet color. The foliage is somewhat of the same character as the *Yellow Flowering* Currant. The *Sweet-fruited* has smaller, oval, shining fruit, of a violet color, and the foliage resembles that of the black Currant more than the others. We have recently received several new varieties from France, which we have not yet tested sufficiently to warrant an opinion of their merits.

WEEPING, OR DROOPING TREES.

There is something so attractive and so graceful in the character of drooping trees, that they arrest the attention of persons who would scarcely bestow a glance upon the noblest and rarest trees of the ordinary upright habits of growth which prevail among the mass of forest trees. We see this exemplified daily in our own grounds. A Weeping Willow, common though it be, never fails to elicit admiration. In the hands of a skillful, judicious planter, no other trees are more effective in giving variety, character, and expression, to a landscape; but they must always be used sparingly, and with the exercise of good taste and a great deal of foresight. We have known persons so captivated with the elegance of the Weeping Willow, as to plant half a dozen immediately around their dwellings, stamping them at once with the character of mausoleums, more than that of the habitations of living beings.

It is equally in bad taste to plant largely of trees in which any particular character prevails to a striking degree. At certain points on the Hudson, the tapering Arbor Vitæ is so thickly planted in some grounds that one can see nothing else. These, the stiffest, most artificial-looking, of all other trees, should be planted with the greatest caution. While two or three might produce a fine effect, entire groves or masses of them become monotonous or disgusting.

It is quite obvious that weeping trees, to produce any effect, must be pretty well isolated; for their streaming side branches are the source of their peculiar grace and elegance. This points out the jutting edges of groups of trees, and the open lawn, as their appropriate situation. The Willows have a particularly fine effect on the margins of streams, ponds, or other bodies of water. Those with stronger branches, such as the Ash, Elm, &c., are well adapted to forming arbors, and are much employed for this purpose. All the drooping trees are considered appropriate ornaments to cemeteries; the mournful expression which their drooping habit conveys, certainly renders them fitting objects for this purpose.

EUROPEAN WEEPING ASH.

This class of trees has, within a few years past, received more than ordinary attention; and the consequence is, numerous important additions have been made to the list. Formerly our collection of weeping trees was meagre, extending but little beyond the Weeping Ash, Weeping Willow, and Birch. At present we have five or six varieties of Weeping Ash, several of Willow, beside Weeping Oaks, Elms, Poplars, Mountain Ash, Beech, Larch, Linden, Laburnum, Sophora, Thorns, and many others. Ample material has the landscape gardener here to meet every emergency.

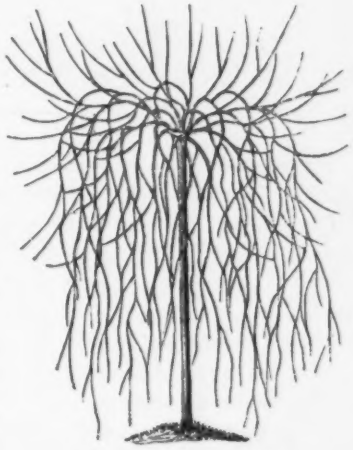
The common *European Weeping Ash* is one of the oldest and most widely disseminated trees

of this character. Grafted on a common Ash eight to twelve feet from the ground, it makes a tree of great beauty. The growth is rapid, and it soon forms a large, spreading, drooping, umbrella-like head.

The *Gold-barked Weeping Ash* is a very interesting variety; different from the common sort chiefly in having a yellow bark, which in winter is quite brilliant.

We have obtained here a seedling Black Ash, which promises to be a handsome drooping tree; the branches are exceedingly slender.

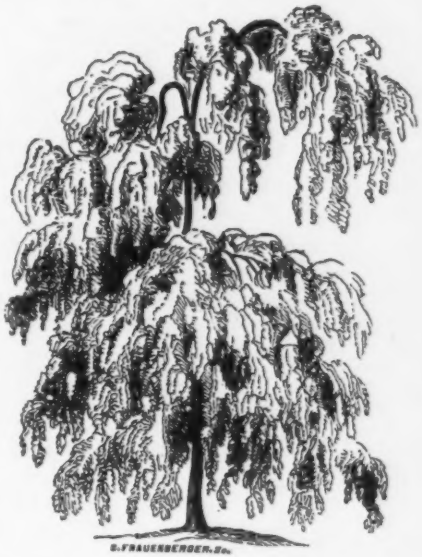
The *Lentiscus-leaved Weeping Ash* (Fraxinus lentiscifolia pendula) is a fine, spreading, and somewhat drooping tree, well worthy attention; but is inferior, as a weeper, to the others named.



AMERICAN WEEPING WILLOW.

Among those recently brought to notice is the *American Weeping Willow*, from France. It is a trailing species of American Willow grafted on some upright-growing sort. When worked six or eight feet from the ground, it forms one of the most elegant weeping trees we have yet seen. The branches are very slender and numerous, and take a downward direction at once, like the falling spray from a *jet d'eau*. The above is a sketch of a young tree three years from the graft. It is more hardy than the common sort, and being a much smaller tree will be much more appropriate for small lawns and cemetery lots.

The *Weeping Sophora* (Sophora Japonica pendula) is a remarkable and elegant tree. Grafted on tall stocks of the *Japan Sophora*, it sends downward a head of long, slender, green shoots, quite ornamental, both in summer and winter. The foliage resembles that of the Laburnum and Locust, to which it is allied. It is quite far enough north here at Rochester, and does



WEEPING SOPHORA.

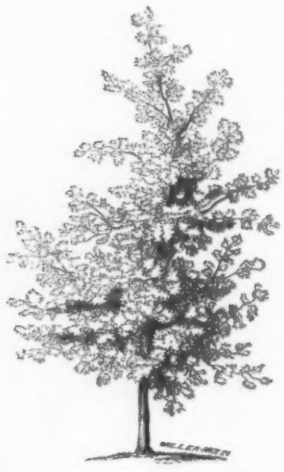
not succeed so well as it does further south. It is not so extensively propagated in the nurseries as it should be, and is always scarce. It is an exceedingly beautiful tree, and should be planted wherever it will grow well. We shall continue notices of other trees of this character in future numbers.

A NEW SHADE TREE.

BY THOMAS MEEHAN, GARDENER TO CALEB COPE, PHILADELPHIA.

A CELEBRATED writer has lately issued a work to show who was, or who was not, the writer of the world-famed "*Letters of Junius;*" I wish some one equally anxious to display the acuteness of their logical powers would undertake to show us whether the ancient JOB was, or was not, a gardener or arboriculturist. In the absence of all positive proof to the contrary, I venture to offer a presumptive one that he was not: he never could have sustained his patience under the numerous tempting circumstances which crowd on the gardener. Or, had he the heart of an arboriculturist, he could not have stood unmoved when told "that his Elms were smitten with grubs and borers; his Lindens bore wreaths and festoons of insects, and were rotten at the ground; his Ailantus had become the pests of his country; and his Maples the food of drop-worms and aphides." JOB *could* not have been a gardener, and it is well he was not, or he would have lost his character and the world its model; and we have gained him as a precedent in the inquiry, "how to stop this plague:" for trees are essential to our existence. If one kind *wont* do, we must find a substitute.

I am going to propose that we introduce a *new shade tree!* Start not, good reader, the "vast and lofty" Himalaya's have not been ransacked to present you with another "curious and rare" specimen of abstract beauty; nor has China or Japan been made to lay before you another object of a nine days wonder. Our subject has no claims of kindred with either the "Tree of Heaven" or the "Deodar;" but is one "to the manor born," in which you all, either by birth or adoption, claim an inheritance. But its country must not depreciate its value. *It is American!* It is *Liquidamber styraciflua*, LIN., better known as the Sweet Gum. But the Sweet Gum I allude to is not the "Sweet Gum" as we find it in densely crowded woods, with its stem as slender and as straight as a stud-sail boom; nor the "Sweet Gum" as we frequently see it in damp, half swampy places, with shoots as weak and delicate as a card-basket osier; but the Sweet Gum sometimes seen growing by itself, unsurrounded by



LIQUIDAMBER STYRACIFLUA.

other trees, and with its roots free to extend themselves unchecked in a cool, deep, and rich loam. In such situations it has not, perhaps, the rural grandeur of the Oak, or the graceful elegance of a Weeping Willow — not, probably, the stiff, majestic foliage of the Magnolias, or the lightness and ease of the "gentle" Birch; but yet a claim to picturesque and simple beauty which no other can eclipse, beside combining many other traits of interest separate in other trees. It is a very rapid grower, will attain a height of eighty feet, and a circumference of seven, under favorable circumstances, and has a widely spreading, roundish, conical head. The branches have a rigid, though much divaricating mode of growth, and are covered with that corky-barked appearance so much sought after and admired in some varieties of Elms, Maples, and Nettle trees. The leaves and fruit resemble the Buttonwood in all except size and hue, and there is, indeed, a sort of distant relationship between the two families. The leaves are not one-third the size of the Buttonwood, deeply lobed — star-like, and produced in abundance. (See annexed figure.) The upper surface shines as if varnished; and as the foliage moves with the slightest summer breezes, gives the tree a playful and pleasing character in its frequent successions of light and shade. This pleasing character of the foliage is heightened at the approach of fall by its brilliant colors. It has no compeer in this character. The leaves change to every describable shade of orange, yellow, and red.

But beautiful as the tree really is, I would not recommend it as a shade tree solely on that account. It abounds with a resinous principle apparently obnoxious to insects. Extended observation has led me to believe that not a species attacks it. This property alone is worth "a plum" to the planter.

Having stated its merits as a faithful historian, I must narrate its short-comings. I do not believe it is adapted to a great diversity of soil, or to a high northern latitude. In poor, dry soils, it is of slow growth and short duration; and it may not probably do well in the dry and confined air of a densely built city; but what does *well* in such extremes?

It is easily propagated. Seed should be sown as soon as ripe, or early in the spring, in a loose, loamy soil, somewhat shaded. Plants will appear in a few weeks in the spring, and grow over a foot the first season. The seed vessels do not ripen till late in the fall, but should be gathered before the first severe frost, which is apt to split open the capsules and suffer the seed to escape.

It is singular that so handsome and useful a tree should be so long neglected; and the only explanation probably is, that it did not come to us with a recommendation from some one of "the ends of the earth."

[We thank Mr. MEEHAN heartily for refreshing the memory of arboriculturists and landscape gardeners concerning this *beautiful* American tree, the *Liquidamber*.

Some fifteen or sixten years ago we can recollect there was a very considerable demand for it; but latterly it has been overlooked and neglected, while often trees possessing not a hundredth part of its merits have been planted by the thousand. It is a tree that arrests the attention of even common observers at all seasons,—in summer, its starry, shining, tremulous foliage—in autumn, its gorgeous hues—and in winter, its peculiarly furrowed bark. There is, moreover, but the one species of the genus in North America. According to our experience, the seeds generally lie a year in the ground before growing. LOUDON says: "In America, several insects feed upon the leaves, among which we may mention the Green Swallow-tailed Emperor Moth (*Phalæna luna*), and the Great Plane Moth (*P. imperatoria*)." We have no knowledge of this beyond this statement, and we are inclined to think it almost, if not entirely, exempt from the attacks of insects, especially in the Northern States.—ED.]

PRUNING AND MANAGEMENT OF THE PEACH TREE.*

II. PROPAGATION OF THE PEACH BY BUDDING.

31. It is by budding that the Peach tree is propagated. The proper stocks for it are the Almond, the *Saint Julien* and *Damask* Plums, and the Peach itself. Lately the *Myrobalan* Plum has been budded on, and is said to produce excellent stocks for this purpose, but I have not tried it.

32. The finest trees are produced on the Almond stock, especially on the hard-shelled variety. It succeeds well everywhere except on very wet soils, or those subject to be flooded, because the roots of the Almond almost invariably perish when under water. It has the advantage of late growth; consequently, it is indispensable for the late varieties of Peaches.

33. The Plum is better fitted than the Almond for moist soils. Except in this case, I prefer the Almond stock because it imparts a greater vigor to the tree. This is the opinion of the growers also. Nevertheless the following example does not appear to corroborate this: For ten years I have cultivated a wall covered with a hundred Peach trees, of which fifty were on Almond and fifty on Plum stocks, planted alternately. The soil was very unsuitable for the culture of the Peach, being gravelly, stony, clayey, &c. All the trees have, notwithstanding, grown well; Almond and Plum stocks have made an equal growth, so much so that, even after most scrupulous examination, I have found it impossible to say on which stock the tree succeeded best. The produce from both has also been in every respect equal. I still, however, prefer the Almond stock, although I have given this case as an exception in favor of the Plum.

33. The Peach tree itself is the least employed as a stock on which to bud its different varieties. They grow on it vigorously, but do not fruit so readily. They are also liable to gumming. I have budded the Peach on its own stock, and have been disappointed with the crop of fruit. I have remarked that by budding a second time,

*Continued from December number.

the growth was moderated, and the crop was abundant. But this proceeding delays production; it must therefore be abandoned for the use of the Almond and Plum stocks. Beside, thus worked, the Peach is but short-lived.

35. If we desire to plant our own Almond stocks, we must choose hard-shelled Almonds, and put them in layers. In the first fortnight of January, we must put in a box or basket, alternately, a bed of sand of the thickness of the hand, and a layer of Almonds until the box be full, or till all the Almonds are used, and place the box or basket in a cellar, or in the earth, so as to be moist and protected from the frost. As soon as there is no fear of frost, that is to say about the end of April, the Almonds are planted in a soil, manured and trenched to the depth of sixteen inches at least. Holes are then made from six to seven inches deep, and about a foot apart, in each of which an Almond is placed, after breaking off about one-third of its tap-root in order to make the roots strike out more horizontally, and to prevent their going down too deep. This process has the advantage of fitting the Almond for those soils which have but a thin layer of vegetable earth. The Almond trees will be ready for budding at the end of August or beginning of September following.

36. If we bud on the Plum, suckers must be procured; these generally spring from the bottoms of large Plum trees. The preference is to be given to the *Black Damask*, which the cultivators near Paris generally get from Fontenay-aux-Roses. These are planted, on a properly prepared soil, from November till March; but November is preferable; they are cut down nearly to the level of the ground, when planted; and they are budded when they have made fresh shoots fit for being worked at the proper season.

37. The ground on which this nursery of Almond or Plum stocks is, ought to be kept perfectly clean. It is necessary to give the ground several stirrings, so that it may be loose and free from weeds.

38. The Plum stock is budded from the middle of July to the middle of August; and the Almond and Peach stocks from the middle of August to the middle of September. The mode employed is almost exclusively that of shield-budding. Care must be taken that the buds are from very healthy trees and from shoots well ripened, and of a slightly abated growth. The stocks which are to be budded must, on the contrary, have their sap in full flow, so that, should the bud not take, the operation can be repeated. On this account the Almond is the most advantageous by reason of its late growth. As soon as the shoots for furnishing buds are cut, the leaves are taken off, allowing a portion of the stalk about one-third of an inch long to remain. The spontaneous fall of this remaining portion of the stalk shows that the bud has taken. Although it is always better to employ the buds as soon as possible after the shoots have been cut off, they may be very well preserved by keeping the bases of the shoots in water. It is even good to adopt the same treatment for buds that have come from a distance.

39. The bud commonly takes in six or twelve days; this is known, as before said, by the fall of the stalk. If, on the contrary, the stalk remains on, and the bud wither up and die, the stock must be re-budded.

40. Stocks can be budded, if planted in the place where the tree is to be formed, quite as well as those in the nursery. The last are always budded with a single eye, the shoot from which is pruned in the following spring. When budded in their position against a wall, a bud can be placed on each side of the stock; this gives two eyes regularly placed for the formation of the two main branches. A year is gained by this, for in the following spring, instead of pruning the shoot from the bud to allow of the growth of the two lower eyes, destined to form the two main branches, these already exist, and can receive their first pruning. But for that to take place, both buds must have taken well, and both must be equally strong. Yet it is true that if one of them die, we find ourselves, by straightening and pruning, in the same position as if we had inserted one bud only.

41. Nurserymen often commit the error of propagating, for too long a time, a variety that they know to be good by taking shoots for the supply of buds from the plants of that sort that were worked the year before. It is better to renew these buds by taking shoots from full-grown trees. This is the reason that I bud myself the stocks which I have chosen in the nurseries; by this I am also more sure of the varieties; I, however, take the precaution of not nailing to the wall some shoots on the upper part of the tree which is to be propagated from, so that the sap may still be in flow at the time of budding. The necessity of having shoots of good growth for this purpose is the reason of nurserymen taking them from the open ground rather than from the walls.

42. By means of budding, several varieties of Peaches can be grown on the same tree. This gives no advantage, except in a case where it is desirable to have, in a short time, a greater variety of fruit than we should otherwise possess. Some buds are worked on the strongest shoots of the middle of the tree. Often these buds make shoots of five feet and more; the eyes burst and form fruit-branches; and sometimes the following year ten or twelve Peaches are gathered from the first shoot of the bud.

43. By the same means it is possible to change the nature of the fruit of a Peach tree. A person had planted double-flowering Peaches; when he saw them his first impulse was to order them to be destroyed. I persuaded him to do nothing of the sort, hoping to make his trees productive in a short time. In the beginning of August, I put ten or twelve buds on each tree, on the young wood as well as on the main branches. The success was complete, and in two years afterward he gathered splendid fruit.'

III. ON PLANTING THE PEACH TREE.

44. A. *On the Choice of Trees for Planting.*—Those who are unable or unwilling to bud their own trees, should be careful properly to select, or cause to be selected, in the nurseries, the sorts budded on the stocks best suited to their soil. As I have already said, the preference is usually given to those budded on Almond stocks, with the previously mentioned exception.

45. After having chosen the sorts we require, we must pick out healthy and vigor-

ous trees, with a clear and lively bark, and with a straight stem, properly furnished with eyes at its base. The size of the tree must not be too much regarded, for there are certain much esteemed kinds, which, though appearing less vigorous, are, notwithstanding, equally advantageous.

46. It is necessary to apply to a nurseryman worthy of confidence, whom we can trust in regard to the taking up of the young trees so as to preserve their roots, this being so important to their success. It is better to pay a trifle more per plant rather than run the risk of having trees with roots cut short and mutilated. We should also take care to have the trees planted as soon as possible after they are taken up; and if they have to come from a distance, it is necessary that they should be well packed, especially the roots, so that they may not be dried by the contact of the air.

47. Before giving the precautions which it is necessary to take in planting, it will be well to point out the aspects most suitable for the Peach. Although those I determine are specially applicable to the climate of Paris, it will be easy to modify them according as the locality may be more to the south or to the north, though the culture of the Peach extends but little to the north of the latitude of the capital. I shall also say a few words respecting the wall against which the Peach is trained, and, after having treated on these two subjects, I will return to the planting.

48. B. *Aspects and Soils most suitable to the Peach.*—The Peach tree equally dislikes an aspect that is too hot or too cold; and, although it may be cultivated against a south, and likewise against a north aspect, it is preferable to plant it against an east or west. In this way, the same wall gives support to trees of which the produce on both sides is nearly equal. This is not the case with walls running east and west; on these the trees facing the south have too much heat, while those on the opposite side scarcely see the sun, and either ripen their fruit badly, or not at all. This consideration has determined the greater part of the inhabitants of Montreuil, Bagnolet, and other places, where the cultivation of the Peach is the principal source of employment, to build their walls to run nearly north and south, in order that the trees planted on the east side may enjoy the influence of the sun from his rising till 1 p. m.; and those on the west for the rest of the day. However, we plant the Peach against aspects less favorable than those just mentioned; for the ground does not always admit of placing the walls so as to afford the aspect we would wish. Walls are occasionally to be seen which do not receive any sun till 10 a. m.; we, however, cover them with Peach trees, which become very fine; but they give great trouble in pruning, because their wood or pushing-eyes are frequently at the ends only of the fruit-branches, which must therefore be preserved entire if we wish to obtain fruit.

49. As regards the nature of the soil, the Peach is not so particular as some imagine. When well managed it grows anywhere, if the soil is only deep enough. Nevertheless its growth is much greater and more regular when planted in a light soil resting on a bottom of silicious pebbles among which the roots of the Almond find their way; it must also be one that does not retain the water so long as to prove hurtful to the roots when the summer is wet.

50. C. *Of Walls and Protection.*—When we have a garden the walls of which

are already built, the aspects that they have must be made the best of. But when a new garden is made, it is well to bear in mind what I have said with regard to aspect, and consequently to lay out the kitchen-garden in the most suitable manner for building walls in the best direction for the trees.

51. When a Peach wall is built at Montreuil, it is 15¾ inches thick at its base, tapering to 11¾ at the top; and about ten feet high. The height is the most convenient for the square mode of training, that which I recommend. There is no objection to the walls being of a greater height. But experience has shown us that the height I have stated is sufficient; and it is prudent not to make an outlay too great in proportion to the produce which may reasonably be expected. The walls should be plastered on both sides an inch and a quarter thick, so as to admit of nails being driven in training. The walls should have a coping, which is made to project 5½ inches for an east aspect, and 6½ inches for the others. This projection is calculated for walls of ten feet high; but it should be increased in the same proportion if that height be exceeded. It should also be increased by about two inches in walls having a trellis, in order to compensate for the thickness of the latter and its distance from the wall. Copings have the advantage of moderating the flow of sap in all the points of the branches that are nailed immediately beneath them; of preserving the Peach trees from drip; and of protecting them to a certain extent from spring frosts which cut off the flower, the coping preventing the escape of heat by radiation.

52. As the west and south aspects are those from which the rains are most to be feared, and which are liable to the strongest action of the sun on the shoots and young leaves of the Peach tree affected by hoar frosts, we augment by means of straw mats the good effects which result from the copings. It is for this reason, that beneath the copings of walls with these two aspects we fasten supports in the walls about three feet four inches apart. These supports must be two feet long exclusive of the part fastened in the wall. Straw mats of this width are fastened on these supports, when the state of the weather renders them necessary.

53. In the gardens of private individuals, it is the custom to cover the wall with a trellis of laths, the intervals of which are nine inches and a half by eight inches and a half. This method is advantageous where plaster is scarce, but not so convenient for training as the naked wall. On this account we do not use trellises at Montreuil, although the keeping the walls in repair and the nails and sheds are not less expensive than the trellis. Trellises are also made of iron wire, which answer very well as substitutes for those made of wood; but they require some care to be taken in tying the shoots to them, which will be noticed when treating of that operation.

54. For a new plantation, we lay out a border at the foot of the wall five feet six inches to six feet six inches in breadth according to our space. A good quantity of well-rotted dung is laid on; the ground is trenched to the depth of eighteen inches or two feet, and the soil must be well broken and equally mixed with the dung throughout. Many are in the habit of digging the holes three weeks or a month before planting. I never practise this myself, and I advise no one else to do so. The season for planting is commonly attended with sudden cold rains, which sometimes fill the holes, rendering

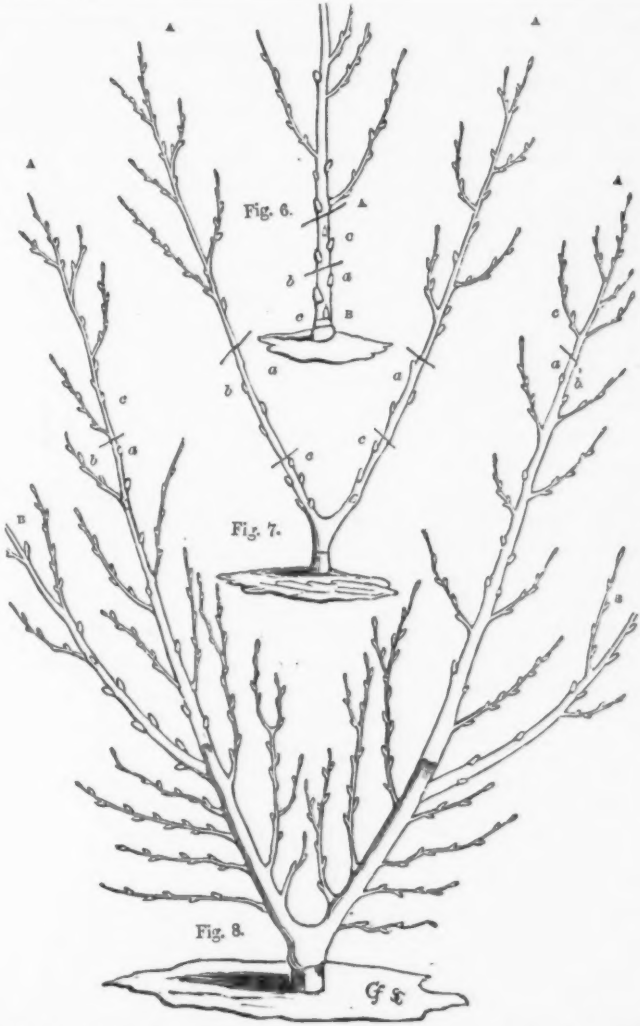


Fig. 6.

Fig. 7.

Fig. 8.

the earth so wet and cold as to prove injurious to the roots; but such is not the case when the holes are made at the time of planting.

55. D. *Planting the Tree.*—Everything being prepared we plant in the course of November. The soil of the border having been newly worked, it is sufficient in good light soils to make holes one foot square [better two feet square] and two feet deep; but when the soil is of a clayey or damp nature, the holes must be two feet square and

three feet deep, and the earth before being filled in must be rendered light by mixture with good garden mold. This method is to be preferred to that of planting in March, which has the great inconvenience of causing a loss of valuable time to the tree, which, when planted in November, is ready to vegetate the first fine weather in spring; but when planting is deferred till March the vegetation of the tree is often retarded by the drying winds so prevalent at that season. The plants called *eighteen-months* are preferred for planting. They are so called from having been eighteen months budded, or nearly so long. Trees which have been thirty months budded, and which have been cut back upon a lower eye, and of which the roots are much larger and less fibrous than the former, are not so good; still, in some particular cases, they are not to be rejected; for instance, they often take root better in new ground.

56. While the holes are being dug, the roots are trimmed, that is, their bruised extremities are cut with a sharp pruning-knife, and so as that the cut surfaces may rest upon the earth when the tree is planted. At the same time, its head is taken off at from eight to nine inches above the bud to allow of planting it with a sufficient inclination, so that the stem may touch the wall; while the roots are so far from the foot of the latter as not to be cramped in growing by the foundations. See fig. 6, which represents the tree before being planted. It is headed back at the point A.

57. The tree is fixed in its place at six and a quarter inches from the wall, and not deeper in the earth than it was before. It is so placed that the eyes *a* and *b* of the bud may be at each side, and not before and behind, without heeding the position of the original bud. It is of little moment whether the latter be turned one way or the other, provided the eyes be properly placed. For the formation of a fine tree in a short time, this precaution is of greater importance than most people suppose. Gardeners usually plant their trees with the budded part in front, without paying the least attention to the position of the eyes. The following spring, when the tree shoots, they are astonished to see the greater number of trees thus planted with eyes before and behind; while those planted as I have directed have their eyes well placed, one on each side. When the tree is in the proper position the roots are carefully spread out, and then covered over to the height I have directed, or at least in such a way that the bud, *b*, may be kept out of the earth.

58. A space of twenty-six feet is left between those Peach trees intended to be trained in the square form. When a Peach and a Pear are to be planted alternately, there should then be a distance of thirty-nine feet between them. The intermediate spaces may be usefully employed by planting between each Peach and Pear tree a young tree, which can be brought up till three years old, and which may be employed to make a fresh plantation, producing a crop in a short time.

(*To be continued.*)

REMARKS ON PRUNING.

BY WM. SAUNDERS, GARDENER TO THOS. WINANS, ESQ., BALTIMORE.

NOTWITHSTANDING the amount of attention this operation has received from the earliest to the latest contributions to horticultural literature, there is still much room for improvement in its practical application. It is a matter of regret, and tends greatly to retard horticultural progress, that no definite rules can be laid down for guidance in many of its details, that will be found equally applicable in all cases: hence it occurs that the many seemingly conflicting advices given upon certain subjects bewilders the inexperienced cultivator, and makes him doubt the truth of the sentence that says, "In the multitude of counsellors there is safety." Although theoretical advice will be taken only for what it is worth by the man whose practice is backed by long and successful experience, yet there are many who have not had the benefit of such experience, that are easily led to agree with fair and plausible deductions, and only discover their error when it is too late to be recalled.

In the various manipulations connected with the cultivation of fruit trees, pruning is one of the most important, and one of the least attended to. It is true that most people who have fruit trees generally make some attempt of the kind; but wholesale inflictions of the saw and axe in trimming up the stems, as practised by many, can not be termed pruning. To attain a thorough knowledge both of the use and abuse of the operation, it is necessary to take into consideration the conditions upon which a tree exists, and the modifying influences to which it is subjected. When a seed is deposited in a suitable medium for germination, its first effort is to send roots downward into the soil, which is immediately followed by a corresponding upward elongation forming stem and leaves. The seed contains within itself all the elements required for this process; but as soon as leaves are developed, the plant changes its source of nourishment, and is now dependent upon the soil and air for its future support. The elementary substances absorbed by the roots undergoes decomposition in the leaves, and the new matter thus prepared passes down the stem and roots, extending their formation. The roots have no inherent power of extension, but are dependent upon the elaborating functions of the leaves; and although they precede the leaves in the germination of seed, their existence is due to the previous action of foliage, and their increase will be in an exact ratio to the amount of foliage retained.

When we consider, therefore, how essential foliage is to the health and development of the plant, we may well pause and consider what object is to be gained by infringing upon the beautiful system of reciprocal action Nature has established between the roots and branches, resting assured that every branch we cut off exercises an influence either injurious or beneficial to the future well-being of the tree. This corelative action between the leaves and roots being so intimately connected, it follows that by diminishing the extent of foliage a corresponding check is given to the roots. Their power of action being thus circumscribed, there is less absorption of watery matter into the system of the plant, and the wood is in consequence solidified and well

matured, which is indispensable to a fruiting condition. This effect is produced by pruning when the plant is in full foliation and vigorous growth. If deferred until the leaves perform their allotted functions, a contrary effect is produced. By reducing the branches after the fall of the leaf, the balance of power is destroyed, and the roots have the preponderance: new shoots are then produced with increased size and vigor. Hence it is a well known axiom with successful cultivators that summer pruning weakens, while winter pruning strengthens a plant. The whole art of pruning is comprehended in the proper application of these principles; and when we consider in this connection the innumerable and widely varied causes which render pruning necessary, we will at once see the folly of attempting to establish a definite rule that will be a safe guide to the inexperienced.

In the practical application of the above rules, the pruner must be guided by the condition of the tree to be operated upon. In young trees it is evident that a healthy, vigorous, and extended system of roots is the most important consideration. To secure this, we must carefully preserve every shoot and leaf during summer, and prune it down immediately the season's growth is completed. In an abstract view it does seem a negative practice to allow a branch to grow and then cut it off and throw it away. I confess that, in common with many others, such was at one time my belief, and that something would be gained in establishing the base of a young plant by pinching the ends of strong shoots during summer, with the view of encouraging the production of laterals. After repeated and extended experiment on a variety of young fruit and also ornamental plants, I am convinced that, as a general thing, the practice is decidedly injurious.* No doubt we can thus *shape* the plant at once, but at the expense of future vigor and permanent health. Secure a healthy root action by winter pruning closely a season or two, and then summer pruning may be resorted to with the best results.

The cultivation of pyramidal Pear trees is at present attracting some notice, and as pruning forms a principal auxillary in securing any desired form, very much will, of course, depend upon the system pursued. No class of fruit trees present a greater dissimilarity of growth than Pears—consequently the treatment of each variety forms, as it were, a distinct study. Many sorts assume a pyramidal habit almost intuitively, while others require the greatest care to bring them into that form; their treatment must be widely different. Taking the *Winter Nelis* as a familiar example of the latter class, we find a straggly, horizontal growing tendency to counteract. To do this, winter pruning must be vigorously persevered in until the plant sends up vigorous growths. The summer management will then consist in checking the growth of the strongest shoots by pinching their extremities, reserving a considerable portion for winter removal in order to keep up a slight preponderance in favor of root growth. On the other hand may be cited the *Beurre d'Aremberg* and *Glout Morceau* as representatives of a class that naturally form numerous side shoots and laterals. Further than a slight reduction of the first two years' growth these may be kept in the most uniform shape by throwing the knife aside, and skillfully plying the finger

* We quite agree with Mr. Saunders on this point, as regards the rearing of trees.—Ed.

and thumb occasionally on the young growing shoots. Between these two extreme cases are many intermediate ones. Those having a strong upward tendency of growth, as *Urbaniste**, *Duchess d'Angouleme*, *Louise Bonne de Jersey*, *Vicar of Winkfield*, &c., require a different treatment. Lateral growths near the base must be encouraged by severely pinching the strong central shoots, never allowing them to exceed eight or ten inches without bruising the points between the fingers. To preserve the desired shape in these, it will occasionally be found necessary to remove a few of the strongest top shoots altogether during summer, and shorten-in the side shoots in the winter pruning. Another distinct and rather unmanageable habit may be exemplified in the rampant growth of *Beurre Diel* and *Triomphe de Jodoigne*. These can only be kept within bounds by persevering in close summer pruning, leaving as little as possible for winter removal—otherwise they will, for many years, produce more fire-wood than fruit.

There is still a large majority that can not properly be classed with either of the foregoing. These may be termed rapid growers, but at the same time easily formed into any desired shape, throwing out numerous side shoots when the tops are pinched. I might notice the *Fondante d'Automne*, *Bonne de Zees*, *Golden Beurre of Bilboa*, many of the *Doyennes*, and a host of others that come under this head, according to my observation of favorably situated trees in this locality. Climate, situation, soil, all exert a manifest influence both in habit and vigor of growth, but the general principles by which we are to be guided remain the same throughout.

It may be supposed that the above remarks have reference merely to training, overlooking its effects as influencing the production of fruit. Such, however, is not the case; in securing the one, we also ensure the other. One prevailing cause of sterility in fruit trees is over-luxuriant growth, and summer pruning is the most effectual check that can be applied, unless we resort to pruning the roots. In fact, it is only by a proper attention to summer disbudding and pinching that the full benefit of good cultivation can be obtained; otherwise it would seem worse than useless to manure and cultivate highly, since it would only encourage excessive wood growth; but summer pruning enables us to derive the full benefit of such generous treatment by the increased quality of superior fruit. By suppressing excess of growth on one portion of the plant the sap is more equally distributed, and fruiting spurs are encouraged on the older branches. The application of stimulants enables the plants to perfect a heavy crop without a weakened reaction, and a yearly succession of good crops becomes a matter of certainty. Summer pinching to promote fruitfulness may be practiced on trees of weakly and delicate growth without materially imparing their vigor. Elongation may be checked by bruising the extreme point of the shoot without any reduction of foliage. Grape vines pruned on the spur system, are frequently injured by the wholesale destruction of foliage after the fruit is formed, instead of attending to it early and checking the shoot as soon as the fruit-stalk could be distinguished. No fruit tree is more benefitted by disbudding and summer pruning than

* We find the *Urbaniste* one of the most easily managed pyramids, being short jointed and quite branchy from the start.—Ed.

the Peach. Naturally a plant of rapid growth under favorable conditions, it frequently attains an unfruitful luxuriance. Early attention to the removal of superfluous and pinching the points of the strongest shoots, will not only enhance the value of the fruit, but increase the longevity and health of the tree. LINDLEY truly remarks: "If well directed, pruning is one of the most useful, and, if ill directed, it is among the most mischevious operations that can take place upon a plant."

[We commend Mr. SAUNDER'S remarks to the careful perusal and reperusal of all inexperienced persons who are charged with the management of trees. We know Mr. S. to be an intelligent and thoroughly practical man.—ED.]

CULTURE OF PIE PLANT—RHEUM.

BY WILLIAM BACON, RICHMOND, MASS.

ALL who have had any experience in the matter, are fully convinced of the luxury and healthfulness of fresh and succulent substances for pies at all seasons of the year. Yet the idea has never suggested itself to the many, or if it has it is not practiced upon, that a cycle of such substances may be had so as to furnish fresh material through the year. The Pie-Plant furnishes a beautiful link in this connecting chain, coming, as it does, when Apples begin to lose their freshness, or, as they are in many families, not to be found at all, and before Gooseberries, which have not yet found place in one garden of twenty to any tolerable extent. Yet how few cultivate the Pie-Plant! Why, we know not, for nearly all are fond of it when properly cooked, and it can be raised as easy as the Burdock when once introduced into the soil. Neither of them will grow successfully in poor soils. The Burdock chooses a location for itself, and the Pie-Plant is nearly always thrust into some poor corner of the neglected garden, and then blamed excessively if it will not produce large, fine footstalks where even common weeds would refuse to grow, and where no grass would vegetate, unless it be the ever intrusive Quack. We once planted some miserable, puny roots of the Pie-Plant in a rich, deep soil. The consequence was, the next year the size of the footstalk increased one-half. The following autumn, before the setting in of frost, we covered the bed some three or four inches deep with fresh horse manure. This kept the roots in fine preservation through the winter; and early in spring, when the ground was fairly settled, the manure was mixed with the earth by a deep and thorough forking. No wonder that the vigor of our plants was increased in a wonderful proportion! As soon as any buds appeared they were taken off—the leaves were cut as often as they became large enough for use. The next autumn we gave the usual protection of manure, and the following spring we forked it in. This course we have now followed for four years with some plants we took from neglected grass land. Now mark the result: from the miserable, puny leaves and stalks of the first year's growth, when the stalks were not more than six inches

long and proportionably slender, we have now large, broad leaves, and stalks so strong that all who see them are inquiring where we got our new variety of Plant, so luxuriant, strong, and beautiful. The answer is conclusive: cultivation has done it; and the simple process we have followed, if pursued by others, will, on a small piece of land, and with very little labor, furnish them with an abundance of pie material at the season when, with many, there is the greatest dearth in that article. If gypsum is sown on the young leaves when the dew is on, it will push their growth finely by aiding the manure at the roots in giving them nourishment. We have no doubt but this article can be raised in the way we have adopted, so as to furnish it to cultivators at the rate of enough for a pie for half a penny. What a cheap comfort!

We have somewhere in our travels noticed another error in the cultivation of this plant. It consists in raising it in elevated beds, formed by making a large frame of slabs or boards and filling it with manure and earth, in which the roots are planted. This may give them a *rich* soil, but not a good one—too dry, decidedly. It may answer well in early spring, when rains are frequent and plenty; but as summer approaches, and long, dry, warm days come on, the plants must suffer for want of proper moisture—the leaf-stalk lose its succulence, become stringy, insipid, concoct more of the acid principle, by which it is rendered unpalatable, if not injurious,—and thus its value for half the season be entirely lost; while with a proper locality and care it will furnish a good article, always at hand until September, thus giving a grateful variety to the rich contributions of the summer months.

PARK AND BOTANIC GARDEN AT HAMILTON COLLEGE.

BY A. D. G., CLINTON, N. Y.

It may not be uninteresting to you and your readers, to learn that the friends of Hamilton College, at Clinton, N. Y., are now engaged in improving and adorning the grounds which surround the buildings of this institution. Hitherto, only a small yard immediately under the walls has been devoted to ornamental uses. In some parts of this ground the soil has been so poor that grass could make but a feeble growth, and the trees planted in it have either died at once, or have lived a lingering life, mere poles, with small flags of distress flying at their tops. The walks have been simply straight lines, running here and there, and crossing each other at all angles, without any regard to proportion or beauty. Of late, several more acres (fifteen) have been inclosed within the College Park, and the whole has been surrounded with a hedge. The ground has been thoroughly drained, and certain portions of it graded so as to improve the form of its surface. The rectangular walks have been sodded over, and the entire campus has been laid out in walks winding in graceful curves throughout its whole extent. This arrangement of the grounds has been made principally in accordance with a plan drawn up by J. C. Hastings, Esq., of this place. Trees, of every description flourishing in this climate, are now being planted, bordering upon

the avenues, or in groups, or as single specimens; and in such connections as, it is hoped, will not offend the eye of cultivated taste, The greater portion of this park will be devoted to grass and trees; but, in appropriate places, shrubs, vines, and flowering plants, will be introduced. A section of the ground will be used as a Botanic Garden, in which trees, shrubs, and flowers, will be arranged according to their several families. The College Cemetery, contiguous to these grounds, will also be laid out in a suitable manner.

Within the area newly enclosed, an Astronomical Observatory is soon to be erected, from whose top the view of the heavens above will be unequalled — unless by the view of the earth beneath.

As soon as the means of the committee having these improvements in charge will allow, it is proposed to ornament the park and garden with vases, sun-dials, arbors, fountains, &c., &c.

These grounds are most favorably situated for the purposes to which they are to be devoted — lying on the brow of a hill sloping gently to the east and south, and commanding a wide view of the Oriskany valley. In this valley, near at hand, lies the village of Clinton. Beyond it, to the right, are several ranges of hills, on which the spires of two other villages are visible. In the distance, to the left, the city of Utica, the valley of the Mohawk, and the Trenton hills, are distinctly seen.

It is no vain thing to suppose that the minds and hearts of students will be benefitted by daily walks through such grounds, and in view of such a varied and wide-spread landscape. These peaceful shades, and sunny slopes, and laughing streams — this hum of cheerful industry — the music of distant church bells, and the glimpses and echoes here caught of the great thoroughfares of business and travel — these skies, ever changing and ever beautiful, and the seasons rolling through them, — what mind can be brought into the midst of such scenes, without deriving from them essential profit?

The public already begin to appreciate the objects of those who are thus endeavoring to render more attractive the surroundings of this seat of learning; and we trust they will do so, more and more. Respecting the "material aid" which the committee need to carry out the project thus set forth, the writer does not wish here to enlarge. He will, however, simply say that such assistance is earnestly desired from the public; and that any one who feels disposed to help us in this enterprise, may remit by mail, directly to Prof. Oren Root, Clinton, N. Y., by whom such remittance will be promptly and thankfully acknowledged.

Our present object in writing, however, is not to solicit pecuniary aid, but to speak of this undertaking as an encouraging sign of the times. It is pleasing to notice that a taste is springing up all over the land for an improved style of domestic architecture and of landscape gardening. There is a wide-spread and increasing desire to make the homes of our country more and more attractive. And some of our institutions of learning will, ere long, be as famed for the beautiful scenes amid which they stand, as for the scholarship which fills their chairs of instruction. A teacher in one

of our colleges has happily said: "No seat of learning can be called complete until it furnishes facilities for the study of vegetable growth. * * * * Philosophy and trees have always been fond of each other's company. Plato's college was a grove of Plantains and Olives. Hamilton is destined — soon, the hope is, — to be so far Platonized, that its students will be, from day to day, familiar

> With arched walks of twilight groves,
> And shadows brown that sylvan loves,
> Of pine or monumental oak,
> Where the rude axe, with heavy stroke,
> Is never heard, the nymphs to daunt,
> Or fright them from their hallowed haunt.'"

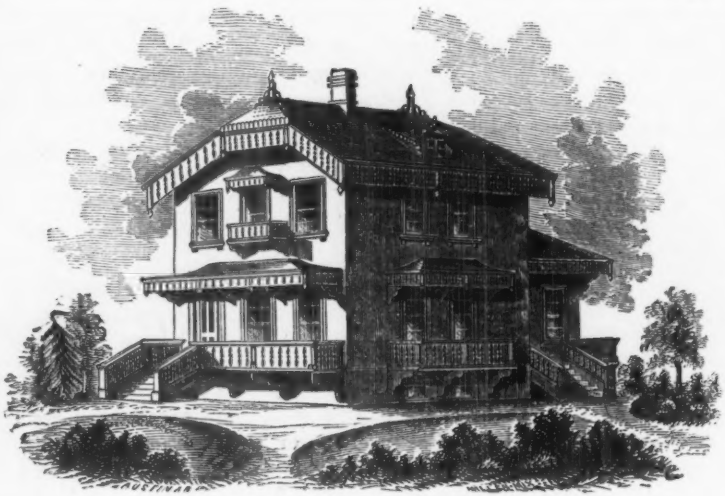
[This intelligence is certainly interesting to us, and can not fail to be so to the readers of the *Horticulturist*. Early impressions are the most durable; and as we hope to see the rising generation acquire a love for the beautiful in nature, we should by all means give them early lessons in rural taste — give spacious and beautiful grounds to our colleges and seminaries, and even to our common schools. We are glad to find that the current of public taste begins to run so strong as to exert an influence. Hereafter it will be a great argument in favor of schools and colleges, that the Professors are men of *taste* as well as learning; and that beside tasteful and commodious buildings, there are ample, tasteful, and well-kept grounds, where both mind and body may have healthful and agreeable exercise in the open air. We trust that the modest solicitation of the gentlemen who have charge of the improvements at Hamilton College will not pass unheeded. We shall cheerfully contribute our mite. — Ed.]

DESIGNS FOR CHEAP COTTAGES.*

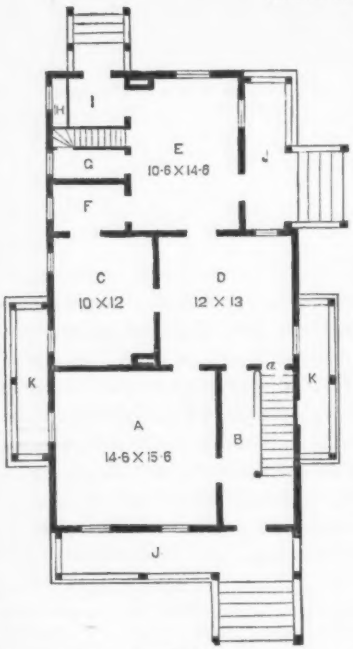
BY MERWIN AUSTIN.

Design for a Cottage in the Swiss Style.—This style of architecture is very convenient and suitable for this climate, and about the cheapest kind of building that can be erected. The beauty of this style of architecture is, that while it admits of being constructed on almost any kind of ground, it is particularly adapted to a hilly country, as the more uneven the surface, the more picturesque will the building appear. In some instances, in other styles of architecture, a beautiful front is seen, perhaps crowded with ornaments, and the eye wanders from one object to another seeking a place to rest; but the details are so fine that the eye turns involuntarily away, finding no bold object on which it may rest and contemplate its beauty. The other sides of the same building, perhaps is quite barren and tasteless. This style admits of but

* This communication and accompanying designs were received from M. Austin, Architect, of Rochester, N. Y. We have made such arrangements as will enable us to pay more attention to Rural Architecture than during the last year, having engaged a well known and competent person to aid us in this department. We have several beautiful designs in course of preparation, one of which we had hoped to receive in season for the January number; but in this we were disappointed. The Swiss cottage, we think, abounds too much in ornament.—Ed.



COTTAGE IN THE SWISS STYLE.



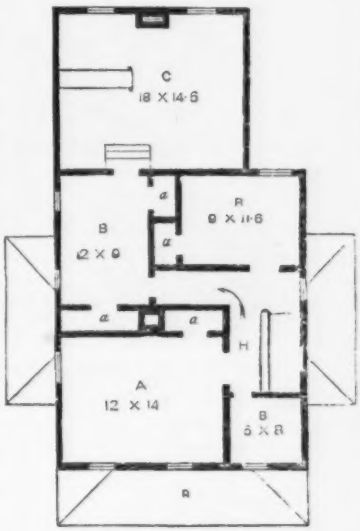
GROUND FLOOR.

very few carved ornaments, taking its beauty from its picturesque outline, and the bold features which are dispersed throughout the entire construction; thus making a beautiful, and at the same time a cheap building.

The main building is 24 feet front by 25 deep, exclusive of kitchen wing, which is 15 by 19. In these dimensions the different piazzas and balconies are not included. The height of the principal story of the main building is 9 feet between joists; second story, 8 feet; first story of kitchen part, 8 feet. There is also ample room in the chamber story of kitchen, which is divided into bed-rooms for domestics. Under the entire building is a cellar, 7 feet 6 inches high, divided into fuel, vegetable, dairy, larder, and other apartments suitable for a country dwelling.

The building is entered by an easy flight of steps, landing upon the piazza, T, opposite the front door, which opens into the hall, B, off which there is a parlor, A; this

hall also leads into the dining-room, D, attached to which is the nursery, C, having a bathing-room, F. The kitchen, E, is entered from the dining-room, and off which there is a closet, G, and a scullery, I, with sink, H. There is also a back entrance through the scullery to the kitchen. There are two flights of stairs: the main one in hall, B; and the back one, which is entered by means of a door in the closet, G. The back stairs also lead to the cellar, which is shut off by a door at the head of the stairs in the kitchen. Off the dining-room and parlor are balconies, K, which, in summer time, afford a pleasant retreat. These balconies, also piazza, J, are protected from the weather by canopy-heads; the roof of the kitchen wing forms also the roof of the rear side piazza. The second story is ascended by the back and main stairs, the back stairs leading into the servants apartment; by an entrance access is also had into the chamber story of the main part, which is conveniently divided into suitable sleeping rooms, A, B, P, having closets, *a*, attached to each. R shows the roof of the front piazza; on the chamber plan are shown the roofs of side balconies.

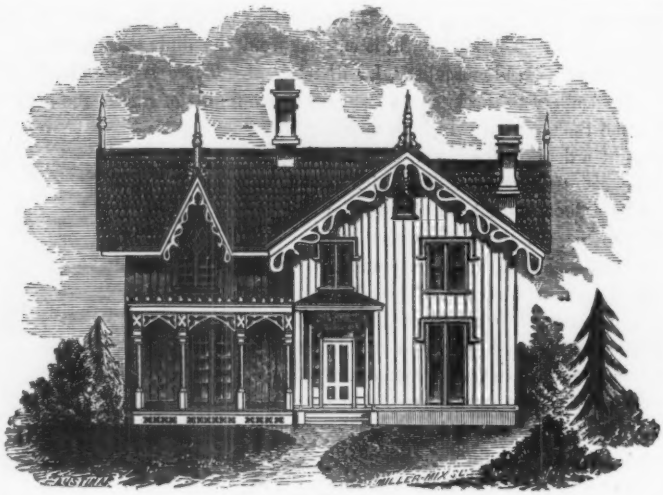


SECOND FLOOR

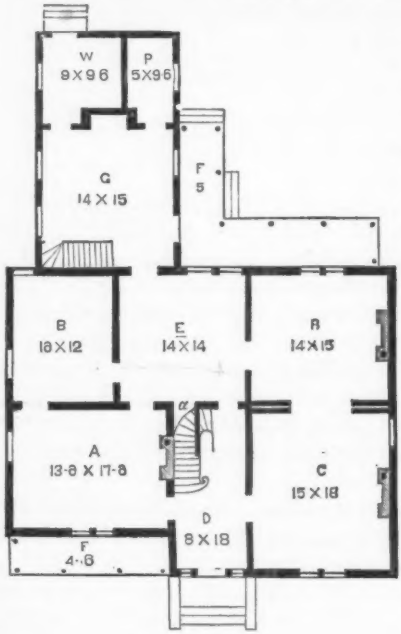
Construction.—Foundation walls of stone, 16 inches thick, built up even with the principal floor joist. Superstruction to be framed work, 4 by 4 inch studs, and can be covered with weather boards, or ceiled with planed and matched boards; the latter most preferable; the boards to be put on horizontally. The roof is covered with inch boards and shingled; gutters made of tin; the piazzas and balconies supported with brackets. The railings are of 1¼ inch boards, with ornamental work sawed out, the lines running perpendicular. The faceure of the cornices are made of inch boards sawed out, as seen in the plan. The interior finish of the building should be quite plain; doors four panelled, casings about six inches wide, finished with a bevelled band. Plastering, in principal story of the main part, should be three coat work, the remainder two. The estimated cost of the design will not exceed twelve hundred dollars.

It may not be out of place here to mention the necessity of distributing the exterior ornamental work on all sides of the building; and not, as is done in a great many instances, concentrate them to the front exclusively.

Cottage in the Rural Pointed Style.—This cottage is suitable for a moderate sized farm house, or a residence in the suburbs of a city. Roof projects 3 feet, finished with ornamented verge boards of 1½ inch plank, and neat verandas with



COTTAGE IN THE RURAL POINTED STYLE.



GROUND FLOOR.

square columns, and a porch over the front door, supported by brackets.—The frame is of light timber, and covered with planed and matched boards, from 9 to 11 inches wide, put on vertically, and battened over the joints with inch boards 2½ inches wide. The windows are ornamented with hood mouldings.

The floor plans are arranged as follows: A, living-room, 13 ft. 6 in. by 17 ft. 6 in.; B, bed-room, 12 by 15; E, dining-room, 14 by 14; R, library, 14 by 15; C, parlor, 15 by 18, connected with library by sliding doors; D, hall, 8 by 18; G, kitchen, 14 by 15; W, wash-room, 9 by 9 ft. 6 in.; P, pantry, 5 by 9 ft. 6 in. Principal story, 9 ft. 6 in. between joists; chamber story, 8 ft.

The cost of this design, with cellar under the whole, will not exceed thirteen hundred dollars when completed.

IMPROVEMENT OF GROUNDS.

BY WM. CHORLTON, GARDENER TO J. C. GREEN, NEW BRIGHTON, STATEN ISLAND.

In connection with your well-timed and judicious remarks on the "Improvement of Grounds" in the October number of the *Horticuiturist*, the preservation of Nature's trees and shrubbery claims our most important attention. The subject requires not my humble pen to depict its great advantages and extol its usefulness, having been often treated of by the most eloquent writers; but as we all labor in one pursuit, even a mite added may be of some service in preventing the wholesale depredation that we so often see going on, the waste of capital, and often vexation when too late to repair the mistake. Ingenuity would be exhausted in discovering a term which should sufficiently express the true meaning of this ignorant demolition.

How often is it the case that, when the site for a house is determined on, the first thing done is to hew down and cut up every living vestige of a tree or shrub on the space to be (as so called) improved. There may be the majestic Oak, Hickory, or Chestnut; and as likely in places where such objects are wanted, there may be beautifully wooded knolls, and shady dells, where the Song Thrush is wont to warble forth his melodious notes; and beneath the bough on which he sits may spring the sparkling Hepatica, the fragrant Violet, the Laurel, the Azalea, and a host of other gems of like character, luxuriating under their accustomed shade, shedding their brilliance, beauty, and perfume around, inviting us to take gratification at no other expense than merely forming paths and removing worthless Cat Briars, Poison Vine, or other such, to give us all that could be required as a pleasant, secluded walk or drive. There may be likewise, a bank of evergreens that by a little care might be improved and reserved as a shelter from cold blasts, or to hide some ugly feature in the back ground, beside the cheeriness given when all other things are leafless and bare. Yet at this point of action all must be leveled — at one fell swoop all must be cut down before the erection of the dwelling-house can be proceeded with. The Song Thrush must be banished — the little flowers and Nature's shrubbery, which before were just where they liked to be, must be leveled: and how all alone and deplorably looking is the most splendid mansion after erection, upon this once well covered eminence, but now a bare hill — or that former sylvan grove, now a vacant slope, where in the present defaced and solitary scene it rears its proud and seedy-looking superstructure. Instead of appearing as a part of a harmonious whole, here alone it stands, a woe-begotten subject, mourning in stiff subjectness to bad taste, and seeming to belong to any thing but the spot upon which it is placed. Sorry is such a scene; and why? Because the ruthless hand of ignorance has irrecoverably destroyed those advantages where Nature has done her utmost to contribute to man's enjoyment.

This is no over-drawn picture, for many a beautiful spot and appropriate feature has been destroyed that might have been preserved, and which it is impossible to create again to equal perfection. Spare, then, the trees; and when the site of a dwelling

house is determined on, remove none but what is absolutely necessary to open out some beautiful object in the distant landscape, or sufficient space for the house. The mind that can appreciate the beauties of Nature may afterward better decide what to remove and which to retain. I would plead, then, for the trees, and the preservation of Nature's flower gardens; for in the most polished surfaces they are often wanted to blend in with the universal harmony of the distant view, to form a connecting link with the immediate precincts; and if it is found to be requisite afterward to remove them, there is no more expense incurred than there would have been had they been taken away at first, with perhaps the advantage of not having to regret for a life time that which can not be replaced.

In all cases before a country residence is proceeded with, some person who can comprehend the beautiful, the grand, and the picturesque, ought to scan over the position, and determine upon the various adaptability of each individual detail, so that nothing be done but what will afterward be an improvement, and give gratification to the proprietor.

It is certainly pleasing to see that, notwithstanding the often misdirected application of operations, there are many proofs existing where the right movement is in action. As we travel along the broad expanse of the majestic Hudson, and view here and there the noble mansions rearing their summits over the surrounding trees, the picturesque and retired country residences, peeping out on the beautifully wooded slopes, the neat cottages, nestled among the umbrageous shade, and the attractive villages, with their back-ground of verdure along its shores, we have ample satisfaction that public taste is now being convinced of the advantages of smoothing down, instead of demolishing, the very many charming spots for man's enjoyment, which Nature has so lavishly bestowed. If we add to this now more generally acknowledged principle a greater number of skilled individuals who are spread over the country, there is better hope for the future, and more certainty that the time is fast approaching when, instead of the many hotch-potch, stiff, and formal apologies mis-called pleasure grounds that at present exist, we shall have an universal scenery of beauty, elegance, and grandeur, that shall outrival all older countries—a unitedness and greatness collectively which, although divided among a number of possessors, will give gratification to the many, and, as a total, will form one great feature in the splendid landscape—will more than equal the greatest individual and ponderous establishment of the aristocratic nobleman of Europe. The splendor, sublimity, and greatness of America's scenery, is by Nature formed exactly to suit these high pretensions. If not destroyed by individual bad taste, there is every opportunity for carrying out so much to be desired a consummation, and nothing to prevent it but an ignorant destruction of some of the finest scenery in the world; and without the protecting influence of a law of primogeniture, we may possess a park-like landscape, equal in finish, and of far greater extent, than Britain itself. May we hope that this progressive and onward movement may rapidly extend until it becomes a general principle, so that our present natural advantages may be retained, and only altered sc as to become worthy of, and a part of, that master spirit which governs all other affairs.

Foreign Notices.

PLANTING ORCHARDS OF APPLE TREES.—When an orchard is to be planted, or where there are many rows, the quincunx arrangement is always the best, because by that mode, each tree is equi-distant from its neighbors, and each has an equal portion of air and light; it is also the best for lining in all directions. The rectangular mode of planting (Fig. 2) is only fit for avenues. The quincunx arrangement is based on an equilateral triangle, at each angle of which a tree is planted. To trace out on the ground the lines for the quincunx, which must not be confounded with the rhomb, we first form a base line by means of poles, or with a line; on this line pegs are fixed at the places where we intend to plant, at the distance determined on, say at 42 feet. In order to mark out the second line, we take two measures, each 42 feet long, placing the end of one of them against the first peg in the first line, as at A, and the end of the second against the second peg, B; we then bring the two measures together at the other ends, and a peg is put in at the point where they meet, at C. The three pegs thus form an equilateral triangle. This operation is repeated at the other end of the first line, and the two pegs last put in give the second line, which is then filled up like the first with pegs, 42 feet apart. The whole of the ground being thus marked out, we obtain the result shown in fig. 1. Each tree is equi-distant from the six adjacent trees surrounding it, which can not be the case either in the rectangular or in the oblique square form.

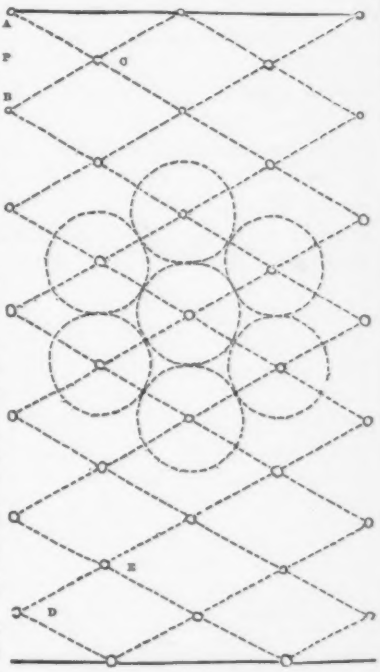


Fig. 1. PLANTATION IN QUINCUNX.

In the quincunx mode of planting, it will sometimes happen that the distance between the rows running parallel to A D is determined; and sometimes the distance of the trees in these rows, as A B is fixed. It is necessary to know, from having one of these distances given, how to find exactly the other. We must repeat the word—exactly; for, supposing the row should contain as many as 50 trees, and the distances A B, or C P, should be only half an inch wrong, some trees, or even rows, would be two feet out of their right position. The trees could easily be placed so as to line in one direction; but this being done, it would be seen that they were, in consequence, put quite as much out of line in another direction. Stake after stake may be altered, to an indefinite period, without forming correct lines, if a wrong principle has been adopted in starting. To prevent such confusion, to save time and expense, and to make sure of staking out the whole satisfactorily, the following will prove very useful.

1. The distance C P between the lines A D, C E, being given to find the distance A D between the trees in the line A D.

$$C P^2 = A B^2 - \left(\frac{A B}{2}\right)^2 \quad \text{This reduced becomes } 4 C P^2 = 3 A B^2$$

Hence the rule: multiply the square of the distance C P by 4 and divide the product by 3; the quotient is the square of the distance A B. Or, to the square of C P add one-third thereof; the sum is the square of A B.

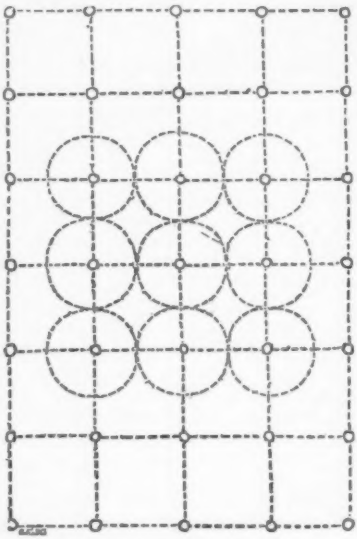


Fig. 2. PLANTATION IN SQUARES.

2. The distance of the trees in the line A D being given to find the perpendicular distance C P between the lines A D, C E—

Multiply the square of A B by 3, and divide the product by 4; the quotient is the square of C P. Or, from the square of A B subtract one-fourth thereof, the remainder is the square of C P.

It will be readily observed from the annexed diagram, that in square planting, a tree neither is nor possibly can be at an equal distance from all those which surround it; and that when four trees grow till their branches cross each other on four opposite points, there is at the same time a large space left elsewhere unoccupied between these trees.

To mark out the holes, we take a piece of cord, at one end of which we make a loop which is put on a peg where a tree is to be planted, and then fastening a pointed peg on the other end of the line, at the distance of the semi-diameter of the hole, we trace a circle with the pointed peg, which circle is the circumference of the hole. It is advantageous to make the holes some time before planting, and to leave them open, so that the earth may benefit by the action of the air. This operation should always be performed in dry weather; each kind of earth should be laid in a separate heap at the side of the hole, and so as not to interfere with the lines of the plantation; that is to say, the earth should be laid in the four angles formed by the crossing of the two principal lines, and not in the direction of those lines.—*London Gardeners' Chronicle.*

FLORISTS' FLOWERS.—As we are drawing near to the close of the floral year, we may turn back at our leisure and review some of the work that has been done in the various departments of floriculture. In what has there been the greatest advance? Fuchsias. Two of the finest dark varieties in cultivation belong to 1853, as it were—Glory, let out by Mr. SMITH, although raised by BANKS; and King Charming, let out by Mr. MAYLE, raised, perhaps, by STOKES. If these be not all we could wish, they are nearer to it than any in cultivation, and must have the leading places in every collection. In the light Fuchsias there has not been so great a movement. The Duchess of Lancaster is the best form, but is deficient in contrast between the sepals and the corolla, which is too pale; but as form is the first property, we must give the Duchess the lead Then we have England's Glory (Harrison), Lady Franklin (Smith), Incomparable (Mayle), and Beauty (Smith), all different, but beautiful corollas; and the only fault is, they do not reflex enough. England's Glory, perhaps, reflexes most, but we have not satisfied ourselves with the growth yet; and as this makes great difference in the reflexing qualities, we must decide hastily but certainly. The pale ones do not come up to the reds. MOORE & SON, of Birmingham, have advertised one, the Duke of Wellington, a red variety raised by STOKES, and it is in form per-

fectly unique; but there is not sufficient contrast between the sepals and the corolla, which is not dark enough; but the reflexing is perfect, the points literally curling over and touching the stem. In fact, we are progressing in Fuchsias more than in any other flower. Sedonia, our favorite of two years' ago, has, however, not been put back by anything. It is still like nothing but itself—beautiful and novel in color, graceful in form, abundant in flower; it is capable of being grown into the most elegant specimen, and there is scarcely a flowering plant of any description that can vie with it. In Hollyhocks but little has been added to the noble varieties we already possess. Numerous seedlings have been produced, said to be improvements on others, and named accordingly; but we have not seen the "improvement." There may have been a shade of difference in color, but there have been the broad, flimsy guard petals much too conspicuous, the thin watery colors, the loose florets, and other drawbacks on several that have nevertheless been "certified;" and people weak enough to attend to certificates will buy. In Pansies the progress is slow if we take the stands of flowers exhibited as the guide. There is nothing in them more brilliant nor more effective than there was two or three years since; a few new ones that will be out soon may help a little. Pinks have made a great start, not publicly, but in raisers' hands; we have seen scores of good varieties in seedling Pink beds equal to anything we see exhibited, and in greater variety; indeed, we think any one of two or three raisers we know could turn out a good dozen. Presently we shall see whole batches advertised, and if not too dear they will sell. Pinks have always exhibited to indifferent judges a great sameness, and any new and good variety will be eagerly bought. In Tulips, every year adds something to our stock; but sameness is the bane of the Tulip. In the country they have some novelties; but they are of the same character as old ones, different in their faults and beauties, but not striking. One has a shorter cup than this, and another is not so flimsy as that, but the only things really novel, that we have seen, are the seedlings at Mr. Goldham's. These we saw of different ground-colors, and with fine changes in the style. Mr. Slater, too, of Manchester, has some fine seedlings, but they are improvements upon old sorts rather than distinct novelties: very desirable, but not such a move as we want to see. Pelargoniums generally produce annually a score or two of new names, and some of them are pretty, but the difference in general is so little that one might fairly wait till they are out and grown by others, instead of buying all, and finding in the majority scarcely a change from what we have got. A new style altogether is found in Lady Paxton, which is in most respects like the several white flowers with crimson or dark top petals, but the novelty is in this: there are three striking spots on the lower petals; which peculiarity, beside the beauty of it, takes it out of all the classes we have. Nonsuch, and one or two others of the dark sort, have spots on the lower petals, but there is no white ground variety among all we have seen that has spots, unless we go to the fancy bedding sorts, so that this may be called a move. Mr. Dobson has, doubtless, some novelties among the seedlings raised at Mr. Beck's; but we have not seen all of them. There will also be the usual batches of sorts too good to throw away, but too bad to be sold at high prices. Dahlias have done something. There will be half a dozen first-class flowers come out, a dozen second-class, and perhaps the usual number of third-class. The second-class flowers being about as good as Societies call first-class—that is to say, flowers that will come respectable mostly, and sometimes excellent, but which are only presumed improvements on old sorts, or, if novel, have some prevailing fault. We have seen two flowers of Keynes's, of Salisbury, perfect gems, Fanny Keynes and Richard Rawlings. A blush white, called Mrs. Rawlings, very fine; Champion, an orange, of Whale's, very noble and good; Golden Eagle, in the same class, good. But the King of the Yellows is the flower of the season, because it has been often shown and never once shown badly; it has been first-rate all through, and twice we have seen it faultless. Then we have a curious and not badly-formed flower, called Ariel, white edged; not abrupt, but the rose color of the ground softens off to a white. Other flowers worth notice are, John Keynes, Margaret, Primrose Perfection, Beauty of Slough, Captain Trotter, Earl of Shaftsbury, and Lord Dungannon, all seen good, but with some slight drawback. Prince Alfred, or Arthur, we forget which, has been shown very bright and good; and Berbury's Kate, which should have come out last year, is, we understand, to come out in May. This was shown good last year. In fancy flowers, there is one called Marvel, a carnation stripe, beating all in that class at present; Admiration, the brightest of the red and white fancies; and Sardanapalus, a

very dark, well-defined fancy, after Moroc and Gasparine. There are other flowers that we may think of hereafter, but the general character of the lot is good ordinary varieties, as times go, but nothing to stand out in relief. However, we have "run the length of our tether," and must halt for the present. We may resume this, for we have not above half done what we intended.—*Gardeners' and Farmers' Journal.*

THE USE OF FRUIT.—Because bowel complaints usually prevail most during the hot season of the year—the latter end of summer and autumn, when fruit is most abundant, and in tropical climates where fruits are met with in greatest variety—it is inferred, according to the *post hoc propter hoc* mode of reasoning, that the one is the consequence of the other. It were about as reasonable to attribute the occasional occurrences of sea-scurvy in the navy to the use of Lemon juice, Lime juice, or potatoes. These articles of diet are powerfully anti-scorbutic, and so are ripe fruits anti-bilious; and diarrhœa, dysentery, and cholera are complaints in which acrid and alkaline biliary secretions are prominent conditions. I have seen many cases of dysentery, obstinate diarrhœa, and liver disease in people who have been long resident in tropical climates, and, from the history which I have been able to obtain respecting their habits of diet, I have come to the conclusion that these diseases were induced and aggravated, not by the light vegetable and fruit diet most in use among the natives, but because Englishmen usually carry out with them their European modes of living. They take large quantities of nitrogenous and carbonaceous food, in the shape of meat and wines or spirits, rather than the light native food, as rice and juicy fruits, and the vegetable stimulants and condiments, the native peppers and spices so abundantly provided by Nature. It is well known that, though large quantities of animal oils and fats, wines, spirits, and malt liquor, which contain a large amount of carbon, may be consumed with comparative impunity in cold climates and in winter, when the carbonaceous matter gets burnt off by the more active exercise and respiration; in hot climates and in summer this element gets retained in the liver, and ultimately gives rise to congestion of that organ and its consequences—diarrhœa, dysentery, and bilious disorders. Though in extensive practice for fifteen years, in a district abounding with orchards and gardens, I can not remember an instance in which I could distinctly trace any very serious disorder to fruit as a cause; though one might reasonably expect some mischief from the amount of unripe and acid trash often consumed by the children of the poor. I would not be supposed to advocate either immoderate quantities of the most wholesome fruit, or the indiscriminate use of unripe or ill preserved fruits. But I do contend, as the result of my own experience, that not only is a moderate quantity of well ripened or well preserved fruit harmless, but that it is highly conducive to the health of people, and especially of children, and that it tends to prevent bilious diarrhœa and cholera. I am inclined to view the abundant supply of fruit in hot climates, and during the summer and autumn, and the great longing of people, especially of children (in whom the biliary functions are very active), for fruit, to a wise provision of an over-ruling and ever-watchful Providence, which generally plants the remedy side by side with the disease, at a time when the biliary system is in most danger of becoming disordered. I have generally observed that children who are strictly, and I think injudiciously, debarred the use of fruit, have tender bowels, and I have noticed that they are almost universally pallid; while, on the other hand, children who are allowed a moderate daily proportion of sound fruit are usually florid, especially among the poor. I therefore imagine that the use of fruit facilitates the introduction of iron, the coloring principle of the blood, into the circulating system. When living in the country, with the advantages of a large garden and plenty of fruit, I always allow my children a liberal proportion, and never had occasion to treat them either for diarrhœa or skin eruptions, though it is a very common opinion that cutaneous diseases are often brought on by the too free use of fruit. On first removing my family to town, the usual supply being cut off, two or three of the younger ones became affected with obstinate diarrhœa and dysentery, which resisted all the ordinary modes of medicinal treatment. My opinion on the subject afterward induced me to give them a good proportion of fruit every day, as Grapes, Oranges, ripe Apples, &c., when all the symptoms presently subsided, and they have never since been troubled either with bowel complaints or skin eruptions to any noticeable extent. The editor of the *Lancet*, in

animadverting on the "health of London during the week ending August 20," makes the following remarks: "The deaths ascribed to diarrhœa are 126, of which 115 occurred among children. The tender age of nearly all the sufferers, 97 of them not having completed their first year, is sufficient to dispel the popular error that the use of fruit is the exciting cause." Several years ago a serious and very fatal epidemic, then called "English cholera," prevailed in the neighborhood where I was living. It chiefly attacked very young children and old people, and was almost as rapid in its progress as the Asiatic form. This epidemic occurred in the autumn, and many people, influenced by the common prejudice, dug holes in their gardens and buried all their fruit, and some even went so far as to destroy their trees. I made many inquiries as to the previous habits of the victims of this epidemic, and in almost every case I learned that fruit had not for some time previously formed any part of their diet. One writer in the *Lancet* has strongly recommended the use of baked fruit as a preventive of cholera, and another has strenuously advocated the administration of diluted sulphuric acid during the actual attack, and the proofs brought forward of their good effects correspond with my own experience. It is asserted that the cholera has never yet prevailed in the cider counties, nor in Birmingham, where acidulated treacle beer and sulphuric acid lemonade are freely used to obviate the poisonous effects of white-lead in the manufactories.—*M. D., in London Times.*

Cultivation of the Aphelandra.—All who are in the habit of growing stove plants can not fail to acknowledge the great beauty, as well as utility, of this genus, flowering as they do in the depth of winter, when a great scarcity generally prevails, and recourse must be had to forcing to procure a supply of flowers for decorative purposes. Aphelandra cristata is so well known that no remarks are necessary with regard to it. There is, however, another species which is not so well known, from being more recently introduced; I refer to A. aurantiaca, a species with splendid scarlet orange colored flowers, and which also possesses the property of flowering when extremely small—it has been flowered when scarcely six inches in height. The Aphelandra can be propagated by cuttings, which may be struck in a moist heat. They should be shifted, as they may require it. The best soil for them is loam, leaf-mold, or well rotted cow dung and peat, with a small portion of sand. They must be kept in a moist stove, and plentifully supplied with water during the summer. If judiciously treated, they will flower in December and January. As soon as they have done flowering, the shoots should be reduced to within two or three eyes of the joint from which they started, and the plants dryed off and rested, during which time scarcely any moisture is necessary. As soon as they begin to show signs of growth, they must be shaken out of the old soil, and the roots reduced. They should then be re-potted in fresh soil, in pots about a size or two smaller than those they have been taken out of, and shifted, as they may require it, until they are finally placed in the pots in which they are to bloom. Judicious drainage is necessary; and frequent applications of the syringe will be found not only to improve the health of the plant, but also be of material service in checking the increase of insects, this genus being particularly liable to be attacked by the mealy bug and red spider.—*W. H., in Gardeners' and Farmers' Journal.*

Cuthill's Black Prince Strawberry.—On the 17th of May last you inserted a few practical remarks I wrote regarding the value of this Strawberry as a good sort for forcing, as well as being a most abundant bearer and of good flavor. I am very anxious to make a few more remarks, feeling convinced they will prove acceptable to those who are interested on this point. After gathering a very good crop from the plants I forced in the spring, I turned them into the open ground; they went on well, and at the beginning of September most of the plants bloomed freely, and on Friday, the 30th September, I put on my employer's table a "large" dish of Strawberries, similar in size, color, and almost equal in "flavor" to those I gathered in the early part of the season. There is at this moment abundance of blossom, fruit ripe and ripening; but as we have had a few frosty nights, I have now placed glasses over the plants, and have no doubt I shall gather several more dishes before the end of October.—*Thos. Webb, in London Gardeners' Chronicle.*

Culture of Gloxinias.—By this time the greater part of Gloxinias will be going to rest, and thus little remains to be done in their cultivation this year. The object of the grower will now be to pay such attention as their dormant state requires. It is not at all conducive to the future welfare of the plants to allow them to get into such a dry state as to induce the bulbs to shrivel, for it often causes many of them to decay at the time when they should be excited in spring. During rest, too much care can not be taken to prevent the access of frost to the bulbs; they are very sensitive of its influence, showing the sad effect of it upon them when they are again to be brought into active vegetation; for if the least degree of frost have reached them, many will be entirely killed, and should any of them escape destruction, they will flower in a very weak, unhealthy state, and probably die during summer. In fact, they never ought to be exposed to a temperature under 40° Fahr. The back shelf of a stove is an excellent dormitory for them; but where that cannot be had, a warm dry press in a dwelling-house will be found a good place to store them away during winter. Having got them safely through their season of rest, then active cultivation may commence, and where a succession of these beauteous and elegant flowers is required, they may be excited into growth at different periods, beginning about the first week of February. They are of the easiest culture, and within the reach of any person wishing to have such lovely additions to their summer flowers. Indeed, considering their easy management, it seems strange that plants possessing, as they do, such attractions are not greater favorites; as no class of plants can be more useful, during the long period in which they remain in perfection, for the decoration of the stove, the green-house, the drawing-room, and they are even well suited for window culture. In starting the Gloxinia into new life in the spring, the pots containing the bulbs are to be taken from their winter quarters, and placed in bottom-heat of between 60° and 70°. The stove, a warm pit, and where these can not be had, a common hot-bed under frames will suit them very well; and so extensively might these beauteous flowers be cultivated, that even the cottager, with his frame heated with any fermenting material, could command a fine bloom of the Gloxinia. When in flower the plants must be shaded from the mid-day sun, and, if possible, bees must be carefully excluded from them, as they seem particularly fond of their beautiful bells, and in their search for honey scratching the soft delicate epidermis of the flower, and scattering it all over with the white pollen it contains; thus tarnishing the color, and depriving the bloom of that freshness which all flowers when grown in perfection ought to have. When the season of flowering is past, the plants must be gradually dried off, and then be returned to their winter quarters. The increase of this lovely tribe is of the easiest management, as a single leaf, with or without a bud at its base, cuttings of shoots, or detached offsets from the bulb, stuck firmly into damp sand, and placed under a hand-glass in bottom-heat, will root in a short time; and where a larger increase is required, a leaf cut into many portions, and treated as above mentioned, will produce plants, but the most interesting way of obtaining plants is from hybridized seed, which, if sown in early spring, will give an abundant crop, most of them flowering the same summer, and as their opening blooms expand it will be most interesting to watch the many hues of colors the seedlings will display.—*Scottish Florist.*

Sulphur vs. Vine Mildew.—As it appears that mildew on Grapes is still spreading through the country, I am anxious to bear testimony to the efficacy of sulphur as a preventive, and also a cure for this very troblesome disease. Last year it made its appearance here, for the first time, and, being quite unexpected, made some progress before it was perceived; after, however, a good deal of trouble and anxiety, I succeeded, principally by dusting, in saving the greater part of the crop. This year, however, as a preventive, I syringed all my vines, just previous to their expanding their bloom, twice over with a strong mixture of sulphur and water, and with the exception of two or three bunches, all my Grapes have been entirely free from its attacks during the season. The following facts are therefore, I consider, fully established: 1. That sulphur is a certain remedy for mildew after it has made its appearance, but that there is considerable trouble in its application. 2. That it is a sure preventive, with but little trouble, provided it is applied with the syringe, previous to the blooming season. 3. That little or no injury is caused to the vines by its application when mixed in water.—*A. Saul, in London Gardeners' Chronicle.*

Editor's Table.

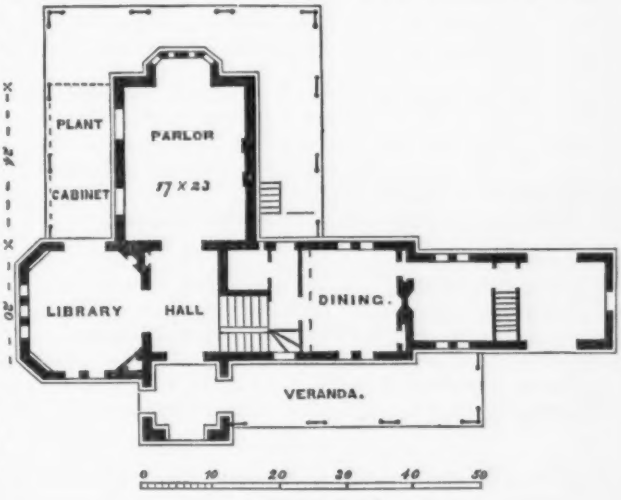
In an editorial note, on page 29 of this number, we stated that we had engaged a well-known and competent gentleman to aid us in our Architectural Department, and that we had hoped to receive a beautiful design in season for our January number, but had been disappointed. We are pleased to state that by delaying the last sheet a few days, we have obtained the desired engraving, which forms the beautiful frontispiece. The architect is Alex. J. Davis, of New York.

WINYAH,

The Residence of Col. R. Lathers, New Rochelle, N. Y.

I send you a short description of the plan of Winyah, having selected the same for publication in the *Horticulturist* as exhibiting the popular style of Americanized Italian, in tower, turret, plant-cabinet, and veranda.

The execution of work on this house may be noted for its substantial character—brick, in hollow walls, with the New Haven stucco, in imitation of freestone, by Gill, whose cement is proved to be durable in many works at New Haven of more than twenty years' standing. By deafening the floors, and insulating the stairs, (by brick wall,) this mode of execution renders every species of building safely fire-proof; *safely*, if the roof timbers be so inclosed by a metal covering, and the floors in contact with cement, that fire could only *char*, without consuming. Had this been the mode of building in New York, (by no means original, but) as specified by me for the last twenty years, and laid before the Common Council of New York in 1834, the Harpers and their insurers had not suffered, nor would the great fire have occurred in 1835.



PRINCIPAL FLOOR.

The portal to WINYAH is under a turret of 12 feet diameter, 60 feet high, sheltering the hall door, and giving valuable room above, beside commanding one of the most extensive views in Westchester, comprising Long Island sound, Hudson river palisades, New York city, and Staten Island.

The perspective view and plan will mainly explain themselves, and the dimensions may be learned from the scale. On the right of the hall, a few steps ascend to the dining-room, lifting the floor of the same so much above that of the library, parlor, and hall, that the kitchen below the dining-room may be wholly out of ground. A few steps connect the dining-room passage with the veranda; and an easy ascent leads to the chambers above, which are five in number, beside the attic and wing-building rooms. In the latter there is a covered carriage-way for horses in waiting, (or the same might serve for a wood-house.) There is a spacious veranda both in front and rear, and the whole is raised high upon a terrace, adding much to the character of the house, and ensuring dry and useful room in the basement.

THE SEASON.—Up to this date (December 16) the season has been one of extraordinary mildness. With us in Western New York, where winter usually sets in about the middle of November, we have been able to continue our out-door operations, with an occasional slight interruption, to this time. Indeed, for a week or ten days past, everything has been spring-like, and we can scarcely believe that it is December. Trees, and even cuttings, planted in October, have made new roots, and in many cases abundantly. Lawns have a fresher verdure than they had in September, and, in fact, everything looks unusual. To the gardener such weather has been particularly acceptable. His plant-houses have required comparatively no fire heat, and the plants never looked so well at this season. Christmas and New Year's boquets must be unusually fine. His winter, and much of his spring work, has been pleasantly executed, and various projects in the way of fencing, draining, trenching, grading, walk making, &c., have been carried out twelve months sooner than he had expected.

The poor laborer, whose day's wages is his all, feels particularly grateful for this mild weather. Instead of being out of work, as he would have been had the ground been frozen, and thrown back on his scanty summer savings, he has been permitted to go on and add to them. An early and hard winter always falls hardest on the poor. We may live many years before we experience another such December; but, as we hear it said twenty times a day, "w emay get our pay for this before the first of April."

BLEAKER'S MEADOW PEAR.—H. L. SUYDAM, Esq., of Geneva, sent us some fine, well-ripened specimens of this variety December 8, saying: "The tree is a small one, about eight years old, and the fruit, until last season, was not considered good for any thing but stewing. Last fall my father-in-law picked the fruit and ripened it in the house." A notice of the history of this Pear will be found among the proceedings of the Pennsylvania Horticultural Society, which we shall publish in the February number.

RIPENING OF PEARS.—A gentleman writes us: "This fall I put in boxes *Louise Bonne de Jersey* Pears; some were in average temperature of 55°, others from 50° to 55°. Those in the coldest room, left there to ripen, were infinitely superior to the others. I assure you I had no idea of the value of that Pear before." This agrees with our own experience. A moderate temperature is better for the ripening of soft, melting Pears.

LARGE SPECIMENS OF THE DUCHESSE D'ANGOULEME PEAR.—In the *ad interim* fruit report of the Pennsylvania Horticultural Society mention is made of "a *Duchesse d'Angoulême* of enormous size—nearly five inches long by four and a quarter broad, and weighing twenty-five and a quarter ounces." We are informed by ROBT. IREDELL, Esq., of Norristown, who presented the specimen, that the tree on which it grew was procured from the nursery and planted in his garden in the spring of 1852. In the spring of 1853 it was five feet six inches in height, blossomed at the proper season, and produced three Pears, all of which fully matured, and about the 5th of October were taken from the tree, and weighed as follows: one pound three ounces, one pound three and a half ounces, and one pound nine and a quarter ounces—the three lacking but a quarter of an ounce of *four pounds!* The *Duchesse* was unusually fine last season wherever we saw it. The publisher of this journal Mr. VICK, gathered from some young trees of his, only one year planted, we believe, a number of specimens with blood-red cheeks, and more melting and delicious than any we ever tasted before. His trees were fed with guano.

POMOLOGICAL NOTES.—I send you the following notes on Pears we are now using, Dec. 10. I have just eaten my last specimen of *Beurré Diel* and *Beurré d'Anjou.* It is not generally known, I think, that these two noble Pears, if gathered late and kept cool, will keep nearly as long as either the *Lawrence, Vicar of Winkfield,* or *Winter Nelis;* they ripen perfectly well in the cellar, too. My *Winter Nelis* and *Glout Morceau* are both ripe, and will not keep much longer. Nothing can be more delicious than the *Winter Nelis;* the *Glout Morceau* is also fine, but it would be better if ripened in a higher temperature. The *Vicar* will *not* ripen so as to be presentable at dessert without the aid of a higher temperature than the cellar. My specimens are now beautiful as they can be in color, a pale, clear straw color. The other day I was tempted to put some on the table, but my guests, who seized them eagerly, were sorely disappointed. It is an invaluable fruit, but it *must* have a week or two in a temperature of 50° or 60° before it is fit to be eaten. My *Easter Beurrés,* picked in middle of September, are now ripe, and how delicious! I can not praise this Pear too highly. It ripens to complete perfection in the cellar without any other care than we give Apples, and we can have it all winter by picking at different times. Those picked in the middle of October are now green and hard, and will keep sound and fresh till April. *Epine Dumas* (*Duc de Bordeaux*) is a beautiful and fine fruit, but it requires ripening in heat to be perfected. It is as beautiful and better than *Vicar,* and must be much more extensively grown than I think it is. *Josephine de Maline* begins to ripen, and is good; an excellent keeper. It has much of the flavor of *Passe Colmar;* and the tree, too, resembles it in several features. Are they not evidently akin? *Beurré d'Arembergs* are in their prime just now, and may keep a month longer. We unanimously set them down as "best," in the same category with *Winter Nelis* and *Easter Beurré,* requiring no care in ripening—a Pear for every body. I must reserve other notes for the future. GENESEE.

THE WINE CROP IN OHIO, 1853.—A private letter from a gentleman largely engaged in the culture of the Grape and wine making at Cincinnati, conveys the following information:

"This has been the best year for the Grape since 1848. The yield from some of the vineyards in this vicinity was enormous—700 to 850 gallons per acre—although the general average for the county will not exceed 400. My own vineyard produced, from five acres in bearing, (12,160 vines,) 4,236 gallons of wine—847 gallons to the acre. The cost of the whole crop will be $600 to $700. I expect to get for my wine, $1 to $1.25 per gallon, when ready for sale next summer. This, you will say, is profitable farming from a small piece of ground. The Grape, however, requires a peculiarly favorable position and soil, with prompt and careful attention, to make it very productive; and then it will pay better than any other fruit I know of."

Observations on Early Forcing.—If we take a retrospective view of the science of horticulture for the last ten years, we shall certainly find that forcing early fruits has not progressed, but retrograded; a few, and very few, exceptions to the rule have been found, although especial claims have been insisted upon that the forcing department is more efficient now than it was at the above-mentioned period. Such, however, is not the case.

There is nothing in the whole routine of a well-kept place, that places the skillful gardener in a higher position than fine crops of early fruit under glass. Since the introduction of improved methods of heating, and invariably claiming our attention, are the different modifications of heating by hot water—the low price of glass, compared with what it was some years since—the enterprise that characterizes some of the wealthy amateurs and gentlemen of refined taste—it is extraordinary that erections for the production of early fruits should be so seldom met with. Gentlemen witness, in many places that fall under their notice, sometimes poor crops, and oftener miserable failures, in structures every way calculated for a different result, and where nature has been but slightly assisted by artificial means. Hence they are deterred from erecting a house, or houses, especially adapted for the production of early fruit, as structures suitable for the purpose would secure an abundant supply, under *judicious management*, at the earliest possible period, and in the greatest perfection. Five hundred dollars expended on a house for the purpose of early forcing, would contribute much to the addition of securing a good dessert, beside being an annual contribution that would be hailed with delight, because occurring at a season of the year when ripe fruit would be a most grateful welcome.

Gentlemen should not be deterred from making an essay in the forcing department, because they may witness some experiments that are not successful. Every *practical gardener* has ambition to excel in the production of early fruits; although it is true that some gardeners may *excel as plant cultivators*, and find themselves wholly inadequate to conduct successfully an establishment where forcing is made a desideratum. Forcing early fruit should not be allowed to fall into disrepute, because the majority of gardeners may excel in embellishing their respective places in the highest artistic manner with plants, but are wholly inadequate to grapple with the science of forcing. Think of the gratification a gardener would have in placing a dessert upon his employer's table, at an early season of the year, second to none in the world; and horticultural societies would afford him an opportunity of "illustrating" that they were the best in his neighborhood. Then he might with propriety say, that "this dessert, sir, is the best in New York," or "Philadelphia" (as the case might be). Then the merits of a skillful gardener could be realized and appreciated. Interest having been excited in the growing crop, as it advances towards maturity, new interest would be felt for the garden and the produce. Nothing is better calculated to leave a more lasting impression, than to keep the table well supplied with fruits and vegetables.

By no means must it be understood that I am opposed to plant culture, and excellence in culture, combined with neatness—predominating characteristics in private establishments, which are sure to be favorably noticed. Still, however, it is to be regretted that gardeners do not pay more attention to the culture of fruit than they do, instead of devoting all their time and resources to plant culture, as is too often the case. Hence, a strong desire should animate every gardener, not to excel in one particular branch of the profession, but to have a thorough, *practical* education, so that it would be a matter of indifference to him whether he was called upon to produce a crop of Grapes, or Peaches, or Nectarines, in the month of April, or a collection of well-grown show plants in the month of May. And he who unites within himself the happy medium of excelling in both departments, may truly be styled a "*practical gardener.*"

Should these few observations induce a more general practice, and bring early forcing more into notice than it is at present, the forcing of fruits especially, I shall hail such an advent with a strong conviction that better days are ahead for the horticultural world. It only requires to be successfully practiced, to make forcing an object of interest in every place of any claims to horticultural distinction. James Stewart.—*Philadelphia, Pa.*

CONSTANT BEARING STRAWBERRIES.—In the December number of the *Horticulturist* the opinion is expressed that there is in the extract from the *Cincinnati Gazette* "a mistake in regard to *Hovey's Seedling* bearing from the 10th March until September," on the estate of Mr. C. A. PEABODY, near Columbus, Georgia. Early last summer I noticed the article referred to, as I had previously similar statements, whereupon I immediately opened a correspondence with Mr. P. on the subject, that I might become minutely acquainted with the facts. During that correspondence he sent me, as late as September, large fresh berries flattened out upon his letters as proof that his Strawberries were still in bearing. Editorial notices of a similar character attesting the same facts in some of the most reliable journals in the States of Ohio, Indiana, South Carolina, and Georgia, have also come under my observation, and I have just seen an editoral in the *Savannah News* of the 2d inst. (Dec.) which says: "We received yesterday from our friend PEABODY, of Columbus, by HARNDEN'S Express, a basket containing an earthern pot in which were nicely packed a cluster of Strawberry vines in full fruit, just as they were taken from the bed near Columbus on Tuesday evening last. The vines are fresh with the earth and roots, and bear, beside several large luscious looking specimens of ripe fruit, many green berries ranging from the earliest stages of berryhood to the almost full-grown *Hovey*. Mr. PEABODY informs us he has at this time half an acre of the growing fruit presenting the appearance of the basket sent." Mr. PEABODY himself is the horticultural editor of the "*Soil of the South*," and about the first of October I had the pleasure of a personal interview with him in this city, when he was in attendance at the Crystal Palace as State Commissioner, and then, in addition to our correspondence, he gave me the most minute description of his mode of treatment, and the strongest assurance of the facts. It seems to me we shall be obliged to credit the statements of fact, however much they may transcend our knowledge or experience. I have no doubt that Mr. PEABODY and Mr. LAWRENCE have given us substantially the facts in reference to the constant bearing of the Strawberry with them, although I have never given an opinion, as I am aware, that even the *Crescent Seedling* would prolong the season north, and I could only at any time express that as a hope. I still cherish the hope that we shall yet see that variety, and also *Hovey's Seedling* accomplishing it.

Mr. PEABODY says: "With my plants and directions, any common sense man may certainly have Strawberries at least six months in the year;" and he also says he has no doubt he can in New Jersey, by the same mode of cultivation, have an abundance of fine ripe *Hovey's* during the months of June, July, August, and September, until frost. He also says: "The four great requisites for a Strawberry bed are, proper location, vegetable manure, shade to the ground, and water, water, water. The whole secret is to cultivate for fruit, and not for vine or blossom. The lowest part of the garden is the best location, and ours is on poor pine land. No tree or plant should be near the Strawbery bed, but shade the ground with leaves and straw, and water freely to set the fruit and perfect it." He uses the *Large Early Scarlet* as impregnator, and further says he has "no idea that the *Hovey Seedling* can be taken from a luxuriant bed and be made to produce fruit longer than the common season. They must first go through the severe training which my method of culture gives them; this took some years to check the disposition to run." In no instance does he remove the blossom, or in any way retard their fruiting, and only uses such an amount of water daily, when dry, as is easily attainable and applied.

I regret my inability—on account of my removal to this city—to carefully follow out these experiments. Will not some one do it? R. G. PARDEE.—*New York.*

I have seen several articles in late numbers of the *Horticulturist* in relation to ever-bearing Strawberries, and also doubts expressed as to the possibility of pistillate plants producing fruit without the aid of staminate ones. I will relate my experience on the subject; it may, however contain nothing new to others.

Having neglected my Strawberry beds this fall until near the middle of October, I then pulled out the superfluous plants and was surprised at finding several fine stems of ripe berries on my

Hovey Seedlings, and also some yet green, and others in blossom. The berries were fair size—not large, and of course not very high flavored. I never examined my Strawberry beds at this season of the year before, and of course am unable to say whether they have before produced a second crop. *I discovered neither flowers nor fruit on any other kind.* I use the *Large Early Scarlet* for fertilizers. The berries were upon the old vines which had borne before this season. R. B. WARREN.—*Alabama, N. Y.*

Strawberries, in common with most other fruits, do occasionally blossom a second time, and produce a second crop. Pear blossoms were quite numerous last September. Your *Hovey's Seedling*, producing fruit at a season when it was impossible for the berries to be fertilized with the pollen of others, goes to prove that fruits *may* be produced on pistillate plants without the aid of foreign pollen.

MR. MATHEWS AND THE CURCULIO.—The HON. JAMES MATHEWS is decidedly one of the most energetic and untiring horticulturists in the West. At a comparatively early age he had the good fortune to be elected to Congress. For this honorable station he had nothing to press him forward but his industry, integrity, and ability. In Congress he was little celebrated for *much talking*, but gave high satisfaction to his constituents by the general correctness of his votes. He served four years. His position in Congress gave him ready access to the acquaintaince of the principal horticulturists of the United States and Europe. The good opportunity which his position gave him he most zealously improved, and expended his *per diem* with a liberality which, had he been a millionaire, instead of a penniless boy, would hardly have been expected of him. He imported trees from all parts of the world with a most liberal hand. Nor has he been less lavish of his time. Before he went to Congress, he did whatever his time and means permitted. When in Congress, those leisure hours which many would have devoted to amusement or useless politics, he employed in his extensive horticultural correspondence, and in reading those valuable works which his additional means had enabled him to purchase. Since the expiration of his congressional service, some seven years, Mr. MATHEWS has devoted at least half his time to horticulture—chiefly experimental, and with very little cash value to himself. He informs me he has remained hour upon hour under his Plum trees watching the doings and habits of the Curculio. He says the notion they can not fly is false; he has seen them rise perpendicular from the ground. In his opinion nothing but DEATH can save the Plums. He has tried almost every variety of medication—lime, sulphur, spirits of terpentine. I can not remember half, but his conclusion is that none of these are of any avail. He says, careful shaking or jarring them down on sheets and killing them is effectual; he has tried it. He also believes feeding a sufficient number of hogs under the Plum trees would answer. The tread of the swine and their destruction of the fruit would KILL the most of the Curculios. His own remedy is to the DEATH, and needs only one application per annum, and will not cost over three cents per tree beyond what is required by ordinary good cultivation.

These are the facts, as I understand them. Mr. M. lives at Coshocton, our seat of justice, twenty-two miles distant, and I generally see him and his garden two or three times a year. During the past Plum season I called on him on other business, and found his Plums perfectly smooth and sound. A few days since I saw him at our County Court. Having noticed the remarks in the *Horticulturist* and in the *Country Gentleman*, I spoke of it to him. He says he wants no compensation without value to the public. Let a sum be subscribed by amateurs and horticultural societies large enough to induce the most active and skillful competition, and let that remedy take the *purse* which shall, after a fair trial of three years, prove best. It seems to me this would be just. Those who labor for the public good should not labor in vain, and especially when they work successfully. What amateur would begrudge a few dollars for a cheap, reliable remedy for the Curculio? I hope a subscription will be started, open to free competition,

and to be paid only when the remedy shall be fairly proved. Who will start it? The money will never be needed unless the Grand Turk is first dethroned. Who of our wealthy and enterprising horticulturists will open the subscription and put the ball in motion?

I only know of Mr. MATHEWS' remedy, that his Plums were remarkably fine, and his soil is just that loose, sandy loam in which they delight. He is ready to submit his remedy to the committees of the Cincinnati, New York, Boston, and Philadelphia Horticultural Societies whenever a suitable premium shall be placed at their disposal. I will only add, if the laborer is worthy of his hire, Mr. M. well deserves a liberal reward if his *mode* is successful. ELI NICHOLS.—*Wolf-Pen Spring, Ohio.*

We entirely agree with Mr. NICHOLS, and we trust that Horticultural Societies will take the matter up immediately and have it put to the test. If individual subscription be necessary, we are ready to contribute.

FRUIT-GROWING IN IOWA.—At the late County Fair the Committee on Fruit did not report (for want of time, we suppose), but below will be found their interesting report:

The Committee on Fruit, in presenting their report to the society, would congratulate its members upon the fair show of fruit upon our tables; the prospect of an abundant home supply at an early day appears very good.

APPLES.—The number of exhibitors of Apples, the standard fruit of this latitude, is seventeen, and the number of varieties presented by them is sixty-five. Among them we find a number of the most valuable and leading varieties, presented, too, by several of the exhibitors, who report that the trees grow and bear well with them.

Indeed, we are satisfied from our examination and experience, that the apple is well adapted to the climate and soil of Central Iowa, and that with us the same varieties exceed in size and flavor those grown in the Eastern States.

Your committee are of opinion that Mr. CATTELL has presented the greatest variety of "standard" and popular Apples, and Mr. HIRAM GILBERT the second best.

No provision is made for a second premium; but your committee have determined to make no recommendation for the "best variety of fruits," as no one exhibitor presented a majority of the fruits on your catalogue; and instead of the amount assigned under that head, to recommend that it be divided between Mr. H. GILBERT, as above, and Mr. ALEXANDER JACKSON, for the best specimen of Plums, a very fine sample of *Coe's Golden Drop.*

The following persons exhibited specimens of Apples, the first seven but little inferior to the two already named: THOMAS MORFORD, G. W. KINCAID, WM. CHAMBERS, Sen., JOSEPH WILLIAMS, JACOB LONG, PHILLIP WAGONER, of Louisa county; T. S. PARVIN, HUMPHREY, BURDETT, JOHN ZEIGLER, SAMUEL GILBERT, P. D. HUMPHREY, of Cedar county; W. H. MILLER, JOHN SHERFEY, AMOS LILLIBRIDGE, and CHESTER WEED. The latter had the greatest variety, but they were not presented for premiums.

QUINCES.—Of Quinces, the next on the list, there were three exhibitors, Messrs. ZEIGLER, OGILVIE, and PARVIN, the varieties being the *Apple* and *Pear-shaped.* The committee are of opinion that Mr. PARVIN had the "best specimen." These are the first, your committee believe, raised in this county.

PEARS.—Dr. WEED, the only exhibitor of this fruit, presented four varieties, all winter Pears. Several of our citizens have raised varieties of the summer Pear, but could not, or did not, preserve them for this occasion.

PEACHES.—Messrs. SAMUEL GILBERT, HUMPHREY, BURDETT, SINNETT, MILLER, OGILVIE, and DRURY, presented specimens of Peaches. Those of Messrs. GILBERT, OGILVIE, and SINNETT, were very fine, but, in the opinion of your committee, Mr. GILBERT's were the best specimens.

It being so late in the season, the number of exhibitors and varieties of this excellent fruit are much less than they would have been at an early day. During a residence of fifteen years in this State, we have seen but three crops of this fruit, so uncertain is it in this climate.

Grapes.—Mrs. Ogilvie and T. S. Parvin exhibited specimens of the *Catawba* and *Isabella* varieties; bunches large sized, and berries well formed.

Grape culture is becoming an object of great interest in the west; and from the experience of a part of your committee, we believe they do as well, or better, on the bluffs of the Mississippi than on those of the Ohio. Dr. Weed and J. J. Huber have each raised a considerable quantity of this fine fruit, but have none upon our tables.

Award of Premiums.—Best specimen of apples, James Cattell; second best, Hiram Gilbert. Best specimen of quinces, T. S. Parvin. Best specimen of pears, Dr. James Weed. Best specimen of peaches, Samuel Gilbert. Best specimen of grapes, (*Catawba*), Mrs. A. Ogilvie. Best specimen of grapes (*Isabella*), T. S. Parvin. Best specimen of plums, Alexander Jackson.—*Muscatine* (*Iowa*) *Journal.*

Ripening of Fruits in Michigan.—*June 21st*—Gathered the crop of seven or eight trees of the *Black Tartarian* Cherry, part of which have now borne for three years. The tree proves very upright and vigorous, and quite ornamental; and the fruit large and fine, but very high flavored.

Black Heart, gathered at the same time, is very similar in both tree and fruit; the principal difference being that it is a little smaller, and more bitter before arriving at full maturity.

Kentish, or *Early Richmond*, is the earliest Morello yet in bearing. Gathered them to-day—nearly all ripe.

Received trees from an eastern nursery as *Carnation* which have this year borne a full crop, and prove in every respect identical with the last.

May Duke has borne three years, and fully sustains its long established reputation for flavor, size, and bearing.

Trees received from the east as *Florence* have now borne two crops, and appear to be identical with *Bigarreau Couleur de Clair*, or *Flesh-Colored Bigarreau* of Downing—ripe a few days earlier than *Elton* (bearing beside them), and decidedly superior to it in size and quality, although a casual observer might pronounce them identical. The *Elton* is, however, a more spreading or drooping tree, and so far a much greater bearer.

June 25th—Gathered the *Eltons* to-day. The very open, spreading trees were indeed a sight worth seeing, and challenged the admiration of all who saw them. They are, so far, the greatest Cherries that have fruited with me; and notwithstanding Mr. Barry pronounced it and the *Black Tartarian* tender in this climate, (*Genesee Farmer* for 1850, p. 191,) they have, with me, passed safely through the trying winters of the past five or six years, embracing at least one of the most severe seasons that has been chronicled since the settlement of the country. We have trees of the sweet varieties hereabout of from fifteen to twenty years growth, and so far I have seen but a single case of the bursting of the bark, except among some quite young trees at Detroit. Indeed, I believe they succeed as well as the Dukes or Morellos.

Mr. Barry also says of *Bigarreau Hildesheim* (*Fruit Garden*, p. 324): "The ends of the young shoots are apt to get winter killed;" but with me it has never lost a terminal bud during the three or four years I have cultivated it.

Also gathered the *Bigarreau*, which proves fully equal to its previous character, but as yet the *Elton* is the greater bearer. The *Bigarreau* is a more upright and compact grower, and consequently more ornamental.

Received trees from an eastern nursery as *Knight's Early Black*, which have now borne and prove identical with the above.

June 28th—Gathered *China Bigarreau*, now just in bearing. There is some doubt of its identity. It ripens earlier than I expected, is more tender, and is one of the best, if not *the* best, flavored Cherry I have yet in bearing. It requires further trial.

Received trees of *Holland Bigarreau* from two sources, one of which, judging from habit of growth, is correct; while the other, which has now borne two crops, is obviously spurious. The spurious fruit is very large, oblong heart-shaped, about two inches long, rather slender, set in a

very deep, narrow cavity. In outline and color it is much like *Napoleon*, but more broad and flattened at the apex; flesh very yellow and very firm, even more so than *Napoleon*. It will ripen a week later than *Bigarreau*, which it somewhat resembles in the growth of the trees.

American Amber, American Heart, Black Eagle, Napoleon, Belle de Choisey, and *Burr's Seedling*, have borne small crops this season, and promise well.

July 3th—Elkhorn, or *Tradescant's Black* has for two seasons produced a few specimens, but not enough to judge of its merits with certainty.

Sweet Montmorency, Plumstone Morello, and *Large English Morello* are just beginning to color, and will last some time after the common Morellos of this region are gone.

Merville de Septembre is now bearing its second crop, yet small and green. It ripened last year the last of August and first of September.

Currants are now just ripe. I received bushes last year from two sources as *Red* and *White Dutch*, and I had previously what I called *Common Red* and *White*. They have this year borne side by side, and I am unable to discover the slightest difference, either in wood, foliage, or fruit, between the *Dutch* and the *Common*. In fact, from all I can gather, I feel assured that in this part of the country, and also in Western New York, whence my "*Common*" stock was derived, the only difference between them arises from difference of treatment. The *Red*, in both cases, is a more vigorous grower than the *White*, and more acid.

May's Victoria, received from Mr. DOUGALL last year, is now just beginning to color. It bore last season—is quite large, and ripens very late. It is not quite as high flavored as the *Dutch*.

Black English is later still, and on account of its musky flavor is not attacked by birds, and as it looses its musk by cooking, it is valuable for tarts, jellies, &c.

Antwerp Raspberries, *Red* and *White*, are now just beginning to ripen, and *Fastolf* and *Franconia* are coloring, and will soon be on hand.—T. T. LYON, *in Farmer's Companion and Horticultural Gazette.*

Notices of Books, Pamphlets, &c.

LANDSCAPE GARDENING: OR PARKS AND PLEASURE GROUNDS. With Practical Notes on Country Residences, Villas, Public Parks, and Gardens. By CHARLES H. SMITH, Landscape Gardener, Garden Architect, etc.: with Notes and Additions by LEWIS F. ALLEN, author of "Rural Architecture, &c. New York: C. M. SAXTON.

The appearance of such a book as this in American dress is proof that Landscape Gardening is beginning to attract attention among us. Nearly all our books on Landscape Gardening are English works, and our ideas on the subject are mostly of English origin; and yet there is very little opportunity for the exercise of the art in this country, to the extent to which it is usually carried in England. English Landscape Gardening needs modifying to adapt it to the wants of a comparatively new country, and the habits of the American people. Americans who have never visted Europe know but little of the character or extent of English parks, either public or private. The park which the English Landscape Gardener describes, or to which he applies his art, is one of hundreds of acres, perhaps extending miles in every direction, in which hundreds of deer are kept, as well as flocks of sheep and herds of cattle. To prevent the too near approach of these to the house, perhaps a wire or sunken fence, encloses thirty or forty acres immediately around it, and this —"the dress ground"—is in beautiful condition—the grass kept soft and smooth as velvet by constant mowing, sweeping, and rolling. The buildings are in keeping with the extent of the grounds, large and massive, (an American would be apt to think gloomy,) bearing striking evidence of its age and importance. It is the "seat" of LordRATTLEBRAIN, and has been the "seat" of the RATTLEBRAIN family for centuries, and bids fair to be for centuries to come: for the younger Lord RATTLEBRAIN commences life just where his father left off.

In the same house, with the same grounds, the same servants and tenants; for the farms for many miles belong to the estate, and are leased to the farmers who occupy them, and whose sons may continue to live on them, as their fathers did before them.

With us things are entirely different. JOHN SMITH, Jr., cannot commence life as JOHN SMITH, Senior, ended it. The property accumulated by the elder SMITH is divided between the younger SMITHS. If the father has a fine house and grounds, in which to enjoy in old age the fruits of early industry, these must be sold, as neither son can afford to invest his portion in unproductive property, or to live a life of ease and luxury. Each one must commence where his father commenced, and work out for himself a fortune and a name. One engages in mercantile pursuit, another seeks his fortune in the West, and soon becomes known as a member of Congress from some western district, or is "on the stump" to secure himself a seat in his own State Legislature. Another purchases a farm in his native State, and in a few years is the "highly esteemed correspondent" of some popular agricultural journal, and President of the County Agricultural Society; or, if he happens to be a man of fine taste, soon makes himself known to the horticultural world as the skillful cultivator of choice fruit.

It may be asked, "Of what advantage then is the study of Landscape Gardening to us?" We answer, "Much, every way." Although we have but few very rich, and few extremely poor, yet we have men of wealth, (and the number is increasing as the country becomes older,) who, becoming tired of the pursuit of Mammon, are seeking pleasant homes in the country. These wish to surround themselves with all the beauties and luxuries of country life. Another class, still doing business in our cities and villages, are securing themselves suburban homes, where they can enjoy to a great extent the pleasures of both city and country. Both of these classes should understand the principles of landscape gardening. There is another, and a still more numerous class to whom we would recommend the study of landscape gardening. Every farmer who owns a hundred acres of land can afford to have a pretty park or lawn. The farmer who places his house within a few feet of a dusty road, as if building on a small city lot, shows neither economy nor good sense. With a little study and labor he may make a lawn that will add much to the beauty and comfort of home. Select and fence in a few acres around the house; plow deep; if not sufficiently shaded, plant shade trees; make the surface as smooth as possible, and sow to red top and white clover; keep this grazed short, and you will have a lawn that will cost you little or nothing.

The American editor, Mr. ALLEN, is a gentleman of good taste and large experience on all matters connected with country life in America—well known as one of the ablest and most indefatigable friend of agricultural and horticultural improvement in our State. We are glad to see his pen and his influence brought into activity where they are so much wanted. The notes, with which he has interspersed this volume, are written in his usual easy, dashing style; but we must confess they add very little to the value of the book: a very large number of them are absolutely superfluous, being intended merely to bestow upon the author's teaching his "unqualified assent" or "emphatic concurrence." The main points which strike us as demanding explanation and suggestion, to show wherein the English practice should be modified to adapt it to this country, are, in a majority of cases, passed over. In one place, for instance, the author in treating of the decoration of the "pleasure ground villa," recommends planting the *Magnolia grandiflora*, Sweet Bay, Arbutus, and Common Laurel. Now, a note from the editor stating that in our Northern and Middle States not one of these trees will bear the climate in the open air, would be

valuable to the uninformed reader, but no such hint is offered; on the contrary, the editor, speaking of the chapter in which this occurs, says the subject is "so fully discussed that hardly an additional word is required."

The important subject of hedges is dismissed in the following summary way:

"Hedges, may, in time, be introduced, and perhaps to good purpose; but we are somewhat doubtful of their adoption to any considerable extent, save, perhaps, in the use of Osage Orange, on the western prairies."

In speaking of "planting the Pinetum," the author says: "As a general rule, the best season for planting Pines is in October." The editor should surely have inserted a caution here, for the benefit of northern planters, at least.

We might, if space permitted, go on and point out scores of omissions, more important even than those alluded to. The notes have evidently been written in a hasty, careless manner; and we beg Mr. ALLEN to take the book up again in a more pains taking mood—dash out many of the superfluous notes, and add others with such care and discrimination as will invest them with value, and entitle them to confidence.

The book is one which should have the widest circulation.

TRANSACTIONS OF THE WORCESTER COUNTY HORTICULTURAL SOCIETY FOR 1852 AND 1853; containing the Annual Reports of the Committees on Fruits, Flowers, &c, with the lists of Premiums awarded, the Officers of the Society for 1853, and a list of the Members.

From the Address of the President we learn that the past season there were 97 contributors of Pears, making 700 entries; 56 contributors of Apples, making 229 entries; 85 contributors of other fruits, making 213 entries; 37 contributors of vegetables, making 151 entries; 33 contributors of flowers, making 86 entries. The President compares their exhibition with one he attended in England as follows:

"As it is known that I have recently had the opportunity of visiting horticultural exhibitions in Europe, I hope it will not be deemed impertinent that I anticipate the question, How does this show stand in comparison with those which I saw in England. This I will attempt to answer, briefly and fairly, with no narrow prejudice of nationality, and with a grateful recognition of the cordial hospitality enjoyed by myself, which the farmers and horticulturists of that country freely offer to every interested visitor. As the general character of all these exhibitions was the same, I will take as an example the 'Horticultural Exhibition of All Nations,' at Cheltenham, under the professed patronage of Queen VICTORIA, Prince ALBERT, the Emperor of the French, the King of the Belgians, and many other distinguished personages. In addition to a very large hall, there were four tents for exhibition, whose united length was 1300 feet, and the width of the tables was eight or nine feet. Three bands of music, with different instruments, played in turn in the beautiful garden. There was the same difference between that vast and magnificent display, and the more limited collection before us, that is found to exist between the privileges reserved to the aristocracy by the institutions of England, and the advantages offered to every citizen in our own country. The English show presented a variety of most rare and splendid flowers, in such size and perfection as it is difficult, with any expense, to attain in this climate. Except the Roses, and they were very choice and perfect, and some new and costly Petunias and Verbenas, and a few other flowers, not easily to be procured, the flowers were of the kinds cultivated with difficulty and great cost by artificial heat. The space occupied by the department of fruit and vegetables in this extent of 1300 feet of tent, was not, in my opinion, larger than one of the tables of this hall, not more than seventy feet. I am glad to say this estimate is confirmed by the judgment of a friend and townsman, now present, who was with me at Cheltenham. There was but one plate of Peaches, which were large and beautiful, raised by artificial heat,

such as in the month of May were sold in the London market at 10s. sterling, or about $2.50 for each Peach; and in July the price was reduced to 40s. sterling, or about $10 per dozen. The Peaches of England are magnificent in size and color, but they have not the richness and flavor of the New England Peach. I do not remember any Pears at that show, and I saw few in England. The season was said to be unproductive for that crop. The Apples were few and inferior. Without attempting a full enumeration, I will say a word of the Strawberries, Grapes, Nectarines, and Pine Apples, which are the best fruits of the country. The Strawberries were of astonishing size, and the best kinds were more richly flavored than ours, and they are expensive. The Grapes were large and good, and raised under glass. The Nectarines were large and delicious, and were sold in July for 40s. sterling, or about $10 per dozen. The Pine Apples were very superior in size and flavor to those imported into this country, and such as were sold in July, in London market, at 8s. sterling, or about $2 per pound. There was but one plate of Tomatoes, and this, in midsummer, though an excellent specimen, was not better than the box which our Vice President, JOHN C. WHITN, Esq., of Northbridge, sent to me, and I exhibited extensively to the members of this Society in February last. The result of the proposed comparison may thus be distinctly stated. The English exhibition was a display of rare luxuries, which, like the privileges of the favored classes in England, are not within the reach of the great body of the people; while the articles of our collection, like the civil and social advantages of our country, are withheld by no artificial impediment or disability, from any citizen who will make the necessary effort to obtain them."

INDUSTRIAL UNIVERSITIES FOR THE PEOPLE. Published in compliance with resolutions of the Chicago and Springfield Conventions, and under the Industrial League of Illinois, by J. B. TURNER, Chairman of the Committee.

The object of this pamphlet is one—not properly speaking within the scope of this journal, but as education is a matter in which we are all deeply interested, and as Professor TURNER, who is the master spirit of the movement, is well known to the readers of the *Horticulturist*—it will not be deemed improper in us to give it at least a passing notice. The pamphlet contains the proceedings of "The Farmers' Convention" at Greenville, Ill., held Nov. 18, 1851, of the Springfield Convention held June 8, 1852, and of of the Chicago Convention held Nov. 24, 1852, together with various addresses, extracts from newspapers, memorials, &c., on the subject of industrial education. The following is the plan of action proposed by the League:

Memorial to the Honorable the Members of the Senate and House of Representatives of the State of Illinois:—The undersigned, citizens of this State, regarding with admiration the facilities which the civilized world at present affords for the liberal education of the members of the learned and military professions, and justly appreciating the benefits which they have derived therefrom in their pursuits in life, desire the same blessing for ourselves, and our children, and for each and all the members of the industrial classes of this State. We, therefore, would humbly pray your honorable bodies so to dispose of the Fund given by the General Government to this State for the advancement of learning, that a State University may be endowed with ample means for the liberal and practical education of all classes in society, each in their own several pursuits in life; and that these funds may be immediately committed to a Board of Trustees for this purpose in general accordance with the plan of the Convention already approved by large numbers of our most intelligent and patriotic citizens.

Principal Director—J. B. TURNER, Jacksonville.

Associate Directors—JOHN GAGE, Lake county; L. S. PENNINGTON, Whiteside county; BRONSON MURRAY, La Salle county; J. T. LITTLE, Fulton county; WM. A. PENNEL, Putnam county.

I. There are now in the hands of the State of Illinois, $150,000 in money, and about seventy-two sections of land selected at an early period, and probably worth as much more.

II. The land and money was donated by the General Government to this State as a trust fund, apart from and independant of the Common School fund.

III. With this fund the State is required by Congress to establish a STATE UNIVERSITY or High Seminary of learning.

IV. The members of this Industrial League are such, and such only, of the inhabitants of the State of Illinois, as desire that when this State Seminary is established it shall be upon the following rational and impartial principles:

V. It shall be designed to furnish to the great industrial classes of the State, our farmers, merchants, and mechanics, each in their own sphere, the same thorough, liberal, and practical education in those various sciences underlying their several pursuits, and in all processes, principles and arts connected therewith, as our colleges and professional schools now afford to their students of theology, medicine, law, and the art of war; and shall be provided with all needful apparatus—lands, grounds, gardens, animals, drawings, models, instruments, and engines—for the proper elucidation of the same, as other schools are provided with their necessary apparatus.

To combine the friends of this interest, the Industrial League of Illinois was incorporated by the Legislature, February, 1853.

1. With a capital of $20,000, to be raised by members, fees, and donations;

2. With a Board of one Chief Director and five associates; whose office it shall be

3. To print and distribute books, pamphlets, and papers, explaining the advantages and necessity of this system of education.

4. To employ lecturers to visit all parts of the State for the same purpose, and to appoint agents for making collections, &c.

5. To circulate and present to the Legislature and to Congress petitions, urging the adoption of this plan for a University, and the liberal endowment thereof by Congress lands, and by State funds in each State of the Union.

6. To receive from each member ten cents admission, and ten cents annual subscription, with fee for diploma and such voluntary donations as may be contributed.

7. The funds so collected to be applied to the payment of lecturers, agents, and officers, (other than Associate Directors, who shall receive no compensation for services,) to the payment of printing and such incidental expenses as shall be approved by the Board: and on the establishment of a University as herein contemplated, any surplus funds in the treasury to be paid over to the treasury of such University.

8. Members of the Industrial League, who desire it, may withdraw from their membership upon giving notice to any agent of the Board, provided their dues are all paid, including those for the year in which they withdraw.

9. The year of the League commences with the first day of each January.

A DESCRIPTIVE CATALOGUE OF FRUITS Cultivated and Sold by THOS. RIVERS, of the Nurseries Sawbridgeworth, Herts., England.

We are always glad to receive Mr. RIVERS' catalogues. They are without exception the most instructive and reliable of any we receive from across the water. He commits errors, to be sure, but it would be wonderful if he did not. He is a most persevering collector of novelties, and of course is not unfrequently deceived. Mr. RIVERS has given a great impulse to fruit growing in England; he has introduced some new items of practice that bid fair to work well in that cool, damp climate. He now strongly recommends *biennial removal* as necessary to the successful cultivation of pyramidal Pears on Pear stocks; he also recommends it for Cherries on Mahaleb stocks. His specimen quarter of Apples, he says, contains 350 sorts—one plant of a sort—and yet only occupies 350 square yards. The trees are planted 3½ feet apart, row from row, and 2½ feet apart in the rows, and biennially removed in November.

WESTERN HORTICULTURAL REVIEW.—We learn that Dr. WARDER is about to revive this journal. The first number is to be issued on the first of January.

CATALOGUE RECEIVED.—*Descriptive Catalogue of Fruit and Ornamental Trees.* From J. S. DOWNER, Elkton, Todd county, Ky.

Answers to Correspondents.

Is there any danger of getting too much manure around young Pear trees? I have two which do not appear to thrive well. In preparing the ground for setting them, I put into the holes a half bushel of the sweepings of a blacksmith's shop, mixed with cinders and ashes from the forge, and also about an equal quantity of well-rotted stable manure, and incorporated them thoroughly with the soil for two or three feet around; after they were set I mulched them with coarse manure. The trees are on Pear stocks.

I find the *Doyenné Boussock* one of the finest growing Pears on Quince, but with me it does not bear well. I have two fine trees five years old, which have never produced half a dozen Pears; they bloom profusely every season, but set no fruit. The *White Doyenné* and *Louise Bonne de Jersey* are far the most productive varieties that I have yet fruited.

Much has been said about the relative hardiness of seedling and budded Peach trees. I have both growing in my garden—some eight or ten of each—both are of the same age, and have received the same treatment, and I can discover no difference as yet in their hardiness or productiveness. They are six years old, but never have produced a peck of fruit, all told, although they are large enough to produce two bushels each, and very thrifty. R. B. WARREN.—*Alabama, New York.*

It is quite possible to manure Pear trees too heavily, and especially at the time of transplanting. We do not approve of manuring at this time, preferring to apply it afterward as a dressing, when the roots are established and active.

THE MONTHLY BUSH ALPINE.—By to-day's mail I have forwarded two Strawberry plants, which were brought to me last night, containing ripe Strawberries, green ones, and blossoms. They are much wilted, and I fear will not live till you receive them. They have borne profusely during the entire season, commencing the last of February, and ripe fruit and blossoms are on my table to-day. The only care they have received is to have the grass pulled out from among them occasionally. I would like to know the name of the variety—if it is an old variety, or the *Crescent Seedling.* The fruit is medium sized, bright crimson color; calyx reflexed when ripe, so that it separates from the fruit in gathering; bearing properties fully medium at all times. WM. BEAL.—*Loudon, E. Tenn.*

The plants received were very dry; but judging from their appearance we should pronounce them the *Monthly Bush Alpine.*

PEARS.—By what rule is the *Nelis* classed among winter Pears? Mine ripen even in the cellar early in November. I had but a few specimens this fall, but they were sweet and delicious.

It is an early winter variety, keeping very well with us usually till about January; in fine eating all through December. You probably picked yours too soon, and the cellar was warm. We find that winter Pears should be picked as late as possible, and then be kept in a cold place until cold weather, when the temperature of the cellar becomes low.

Can you not give some "hints" in regard to setting a small garden to fruit trees and shrubs, that we of the West may combine the *useful* with the ornamental? I have a garden about 50 by 100, which I am anxious to cultivate to the very best advantage. How and what kinds shall I set to have the fruit soonest and the greatest variety—say of Apples, Pears, Plums, Cherries, &c., &c., of all kinds that will succeed in this latitude? A few hints in your excellent work, the *Horticulturist*, will be acceptable to at least one subscriber. L. M. M.—*Sheboygan Falls, Wis.*

We will endeavor to comply with your request; but we will thank you to state if you wish to plant your entire 50 by 100 with fruit trees, and whether it be a front garden or not. These circumstances will necessarily modify the advice we may give you.

Horticultural Societies.

North-Western Pomological Convention.—Many of the most devoted lovers of Pomona, have been looking forward with bright anticipation to the assembling of this body of very intelligent pomologists. The meeting was held at Chicago from the 4th to 7th of October, and exceeded the expectations of the most sanguine, in the number and beauty of the fruits presented. They were spread in masses upon extended tables, and constituted one of the most interesting exhibitions ever made in the western country. The chief contributors are here mentioned, to show the range of country represented at the meeting, and the number of varieties grown. But the list is not complete; owing to the hurry of the occasion, it was impossible to procure the whole, while acting with a committee upon a troublesome duty—that of examining nearly two hundred seedling fruits.

Delegates were present from eight States. Amomg them, Charles Downing, from Newburgh, New York.

The meeting, with its discussions, was a very pleasant occasion to all, and furnished an opportunity of making and renewing many agreeable acquaintances. The proceedings will shortly be published in detail.

Burlington, Iowa, was selected as the place of holding the next meeting, on the 26th of Sept. 1854, when the session is to last four days.

Messrs. Avery and Comstock, of Burlington, Iowa, had a very large and choice lot of fruit. They exhibited about 25 varieties of Pears, 20 of Peaches, and 150 of Apples. Their fruits are much larger and finer than those sent by eastern pomologists. M. L. Dunlap, of Dunlap's Prairie, exhibited 60 specimens of Apples, 4 of Pears, 20 of Peaches, one hard-shelled Almond, Nectarines, and Isabella Grapes. Dr. Haskell, Rockford, 62 varieties of Apples, 5 do. Pears, Isabella and Catawba Grapes. Arthur Bryant, of Princeton, Ill., 52 varieties of Apples, 4 of Pears, and one of Orange Quinces. A. Montague, Wadham's Grove, 50 varieties of Apples. Dr. Kennicott, of the Grove, 50 varieties of Apples, and Isabella and Catawba Grapes. Dr. L. S. Pennington, Sterling, Whiteside county, 70 varieties of Apples, 6 do. of Pears. R. Hathaway, of Little Prairie Ronde, Mich., 20 varieties of Apples, 1 seedling Pear, 2 seedling Peaches. Smiley Sheperd, Hennepin, presented 90 varieties of Apples, 6 do. of Peaches, and Isabella Grapes. William Stewart & Son, Quincy, from 90 to 100 different kinds of Apples. Samuel Edwards, Lamoille, exhibited 47 varieties of Apples, 3 of Grapes, Strawberries and Apricots in spirits. E. Ordway, of Freeport, 12 varieties of Apples. A. R. Whitney, Franklin Grove, 41 varieties of Apples. D. B. Drake, of Elk Grove, 4 varieties of Grapes, 7 of Peaches, and a number of seedlings; also of Pears 8, Apples 54. E. W. Brewster, Freeport, 19 varieties of Apples, 4 of Pears. J. M. Humphery, 20 varieties of Apples. N. Hotchkiss, Belvidere, 34 varieties of Apples. J. J. Thomas, Wayne county, N. Y., a large collection of fruits. Wm. H. Loomis & Co., South Bend, Ind., 42 varieties of Apples, 35 of Pears. A. H. Ernst, Cincinnati, 56 varieties of Apples, 4 of

Pears, 2 stalks of Japan Pea. A. Fahnestock, of Syracuse, N. Y., 104 varieties of Pears, 50 of Apples. Underhill & Carpenter, 26 varieties of Apples. D. F. Kinney, Rock Island, 24 varieties of Apples, 1 of Grapes, 2 seedling Peaches, and some Sweet Potatoes. H. H. Holmes, of Rockford, 33 varieties of Apples, 4 of Grapes, 5 of Plums. Hubbard & Davis, Detroit, 16 varieties of Apples, 7 of Pears, and 6 of Peaches. F. K. Phœnix, Delevan, Wis., 60 varieties of Apples. Ezra Stetson, of Galesburg, Mich., 86 varieties of Apples, 3 of Pears, and 1 of Quince; 8 large ones in a cluster. J. C. Holmes, of Detroit, 28 of Pears, and a quantity of Clinton Grapes. Cyrus Bryant, of Benton county, 29 varieties of Apples, and 3 of Pears. H. S. Finley, 20 varieties of Apples, 2 of Pears, and 1 box of Grapes. John Belangee, Dover, 42 of Apple, 29 of Pears. E. Harkness, Peoria county Ill., 68 varieties of Apples, 2 of Grapes, 1 of Pear, 1 of Quince. E. S. S. Richardson, 24 Apples, 3 Pears. John T. Seelye, of Kendall, 14 Apples. Sterling Perkins, of Cold Water, Mich., 60 varieties of Apples, 4 Pears, 3 Grapes, 1 Quince; also six bottles of new cider. C. R. & M. Overman, Canton, 60 varieties of Apples, 8 of Pears, 1 Quince, 1 Peach, and Osage Orange.

The discussions were very interesting, and resulted in some definite results. They were continued from time to time, and a brief epitome of parts is all that can now be offered. The reader is referred to the pamphlet which will be furnished to those forwarding the member's fee of one dollar to Dr. KENNICOTT, West Northfield, or to S. Edwards, Secretary, Lamoille, Ill.

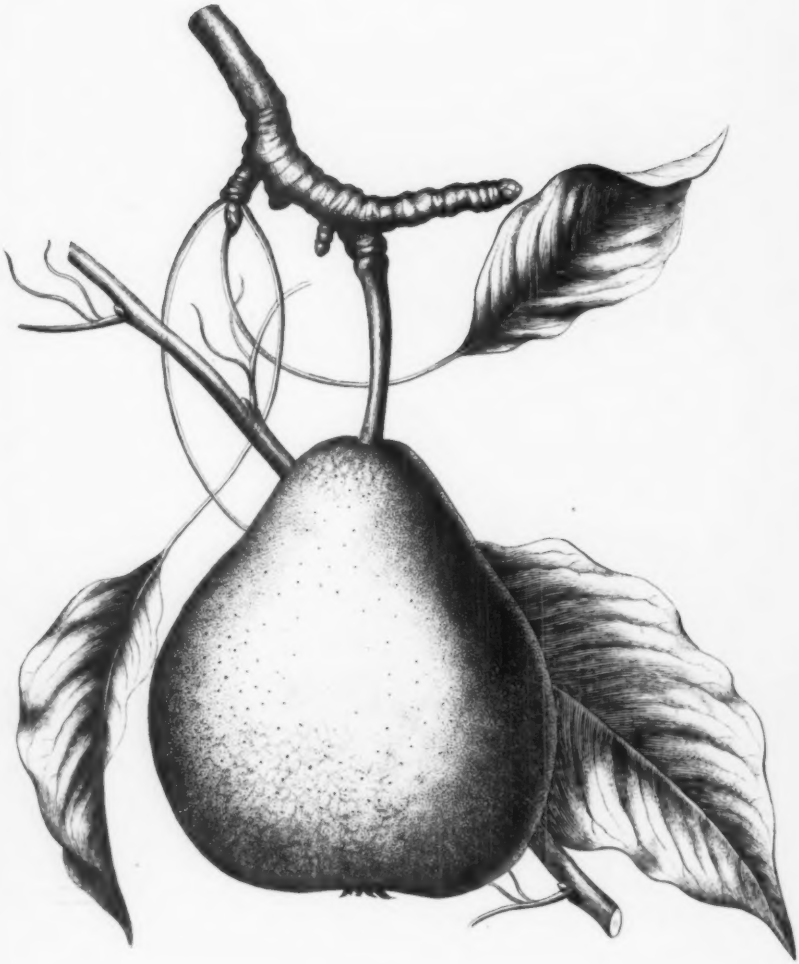
The Grape.—The Isabella, recommended as one of the best, if not *the* best, for extensive cultivation in the northwest. The Catawba was voted superior in all localities where it would ripen. The Clinton not sufficiently known for recommendation.

Pears.—The Bloodgood and Dearborn's Seedling, recommended for further trial. Madeleine, too subject to blight. Bartlett, best for general cultivation. Flemish Beauty, one of the best. Louise Bonne de Jersey, very good. Seckel, the best. Washington, not sufficiently tested. Beurre Diel, not sufficiently tested. White Doyenne and Easter Beurre, best for general cultivation. Prince's St. Germain, too little known. Winter Nelis, good winter Pear—not successful in all localities. Passe Colmar, very good. Des Nones and Hosenschenck were introduced and recommended by A. FAHNESTOCK, of Syracuse, N. Y.

A paper was read containing remarks on the cultivation of the Pear by Professor KIRTLAND, of Ohio, embodying much valuable information touching the nature of the blight, the benefit resulting from the application of special manure, the elements most essential to their successful production, etc. Other papers were referred.

Peaches.—Crawford's Early and Early Bernard were recommended for general cultivation. The Early York, best Early Peach, large White Cling, recommended. Tippecanoe, not well known. Old Mixon Free, good, but surpassed by Early Strawberry. Crawford's Late, recommended. George the Fourth, best of its season. La Grange, thought good.

Apples.—Summer Rose, recommended. Early Joe, recommended for further trial. Holland Pippin, with its synonyms, not worthy of general cultivation. Lyman's Pumpkin Sweet, recommended for culinary purposes and stock feeding. Mother Apple, not worthy of further trial at the West. Hubbardston Nonsuch, ditto. Herefordshire Pearmain, esteemed worthy of extensive cultivation. Blue Pearmain, recommended for limited cultivation. Pomme Grise, ditto. Peck's Pleasant, recommended for further trial. Roman Stem, worthy of cultivation. Golden Russet, of Western New York, recommended for limited cultivation. English Russet, ditto. Milam, after a general and somewhat long discussion, a motion was put to consider it as unworthy of cultivation. This elicited further remarks, which went to show the fact that the popularity of a fruit may bear no comparison to its true worth. Spice Sweeting, recommended for further trial. The Rhode Island Greening was the subject of some remarks, which seemed to show that it does extremely well at the North, while it does not succeed at the South equally well. The discussions were very spirited.—*Western Horticultural Review.*



THE BEURRE GIFFARD PEAR.